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IMPACT OF THE DEFICIT AND THE NATIONAL DEBT ON THE BUSINESS COMMUNITY

HEARING

BEFORE THE

COMMITTEE ON THE BUDGET
UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

CHARLOTTE, NC
NOVEMBER 6, 1989

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THE IMPACT OF THE DEFICIT AND THE NATIONAL DEBT ON THE BUSINESS COMMUNITY

MONDAY, NOVEMBER 6, 1989

U.S. SENATE,
COMMITTEE ON THE BUDGET,
Charlotte, NC.

The hearing convened, pursuant to notice, at 10 a.m. in the Action Room, Charlotte Chamber of Commerce, 129 West Trade Street, Charlotte, NC, Hon. Terry Sanford, presiding.

Present: Senator Sanford.

Staff present: Jennifer Hillman, legislative director and Rachel Ingalls, staff assistant.

OPENING STATEMENT OF SENATOR SANFORD

Senator SANFORD. The purpose of this Budget Committee hearing is to develop testimony and advice on how to go about dealing with the deficit and the national debt, and indeed, whether or not there is any reason to be concerned with the national deficit and the debt.

The Budget Committee is very much concerned that we have now for 8 or 10 years followed a very lax procedure; and worse than that, a procedure of some deceit in reporting the deficits.

And so we come now face-to-face next week with the resolution to once again increase the national debt limit to over $3 trillion. Over the last 7 years, steadily each year, the debt ceiling has been increased until now we are reaching three times what it was in 1982, with a debt of $3 trillion. Does that make any difference?

That is the question that the Budget Committee wants an answer to and we are holding hearings in various parts of the country to hear from local leaders on the issue. As a representative of the Senate Budget Committee, I am holding this hearing in Charlotte, and I call this hearing of the United States Senate Budget Committee to order.

The proceedings, as I indicated, will all be recorded and will all be available to the public. The record of this hearing will be used as we carry this debate forward now, as we must with greater intensity than I have ever seen before.

The topic is "The Impact of the Deficit and the Federal Debt on the Business Community." I think it is a crucial topic about which Washington needs to be hearing from the business community. It is the business community that faces the burdens of our current economic policies, ranging from the high cost of capital to trouble finding well-educated workers, to an increasingly short-term focus among institutional investors in our stock markets, to high interest rates, to problems finding sufficient resources and patient capital to invest in research and development or capital improvements.

Over the next decade, the American economy must undergo a fundamental restructuring from one that spends more than its income to one that earns its own way, servicing its debt in part through trade surpluses. How we get there--whether through a slowdown in the growth of spending while output continues on a full employment path or a combination of recession and inflation and financial instability, depends on a number of key policy choices that will be made over the next few years. I believe that we need prudent, farsighted measures in our budget, trade and exchange rate policies, while at the same time promoting microeconomic policies that foster investment in education, physical capital, and infrastructures.

Achieving these policies depends on a recognition that all is not well, and that these adjustments command urgency on the part of everyone. I have had a great deal of difficulty in getting across a sense of urgency. And partially it is because this whole subject is complex and even dull. It is difficult to get Senators to want to take time to talk about how this budget got in the condition it is in. A newspaper man the other day in asking me to explain our budget reform proposals to get an honest budget, said after a few minutes, "How do you get people interested in this?" He said, "Already my eyes are glazing over."

And so that is a problem. But on the other hand, it goes to the very heart of the economic future of the Nation. And as we vote now to raise the national debt this week, I vote with a great deal of reluctance. I do not think that we ought to be raising the debt. I think we ought to be working on the reduction of deficits, and I hope to try to make that point once again this week. And I do not doubt we'll be quoting some of your testimony in order to make that point.

As I suggest, if we're going to increase the debt, we ought to declare at the same time that we will report honestly the true deficits from now on. Any president now pursuing our current policy is going to add over a trillion dollars in debt in any one term; well over a quarter of a trillion dollars a year gets added now in deficits, piling up on the debt, and a great many people do not know about it.

Since 1980, three-quarters of our national gross savings have been borrowed by the U.S. Treasury; three-fourths. Our debt per capita has grown from less than $4,000 to well over $11,000 just since 1982. Had we invested these funds in our future instead of consumption, one might make a case for such borrowing. We didn't do that. As one corporate executive has said, "While we are mesmerized by the debate over $100 million worth of aid for the Contras in Nicaragua, Japan rolls up a $40 billion trade surplus with the United States, and the very sociocultural structure of our society erodes beneath our feet."

Some of the most troubling figures that result from our overconsumption are those that relate directly to American businesses—our costs of capital and our savings rate. The tremendous decline in national savings, both public and private, has forced the United

States to borrow massively from foreign investors, and to reduce significantly our net domestic investment. Since 1985, over 60 percent of our net national investment was financed from abroad.

The current national savings rate is the lowest rate we've ever had except in times of war or depression, and by far the lowest in the entire industrial world. Our low rate of savings is caused both by the Federal budget deficit and by declining private savings.

The low national saving must eventually translate into low domestic investment. While we've recently been financing our investment through foreign borrowing, the U.S. economy must eventually pay its way. The United States has the lowest rate of net investment, and not coincidentally, the lowest rate of long-term productivity growth among the major industrial countries. To a certain extent, we're not only mortgaging our future through foreign borrowing, but we're holding a "fire sale" of our assets at bargain prices in order to raise the funds.

The flip side of our low savings rate is a high cost of capital. A study recently released by the Federal Reserve Bank of New York indicates that the cost of capital for a research and development project with a 10 year payoff period in the United States is 2.3 times higher than in Japan, 73 percent higher than in Germany. Similarly, the costs of capital for a factory with a life of 40 years in the United States are twice what they are in Japan, and one and one-third times higher than in Britain.

These increased costs are especially difficult because they come at a time when American business is increasingly forced to manage for the short-term, with ever growing percentages of stock being held by institutional investors who are willing to sell out for the high dollar and looking for gains over a single quarter, not years, and when the world economy will see greater competition than at any time in the past. Far more countries have access to capital and technology now, and their workers have the skill to compete in manufacturing to a greater extent than ever before.

So I look forward to your additions to this national debate this morning. We have a distinguished panel of corporate leaders from this community. And if we are to tackle these problems, it will only come through a partnership between business and the government. And the first step, I think, is an honest recognition of this debt and what it means to us. That is what Congress is looking for.

[The prepared statement of Senator Sanford follows:]

Terry Sanford
United States Senator
for North Carolina

News Release

OPENING STATEMENT OF SENATOR TERRY SANFORD
HEARING OF THE UNITED STATES SENATE BUDGET COMMITTEE
ON THE IMPACT OF THE DEFICIT AND THE FEDERAL DEBT ON
THE BUSINESS COMMUNITY

Monday, November 6, 1989
Charlotte Chamber of Commerce
Charlotte, North Carolina

The topic of this morning's hearing--the impact of the deficit and the federal debt on the business community--is indeed a crucial one and one on which Washington needs to be hearing from the business community. For it is the business community that faces the burdens of our current economic policies--ranging from high costs of capital, to troubles finding well-educated workers, to an increasingly short-term focus among institutional investors in our stock markets, to high interest rates, to problems finding sufficient resources and patient capital to invest in research and development or capital improvements.

Over the next decade, the American economy must undergo a fundamental restructuring from one that spends more than its income to one that earns its way, servicing its debt in part through trade surpluses. How we get there--whether through a slowdown in the growth of spending while output continues on a full employment path or a combination of recession, inflation and financial instability, depends on a number of key policy choices that will be made over the next few years. I believe that we need prudent, farsighted measures in our budget, trade and exchange rate policies, while at the same time promoting microeconomic policies that foster investment in education, physical capital and infrastructures.

Achieving these policies depends on a recognition that all is not well and that these adjustments command urgency on the part of everyone. Indeed, this week, Congress will vote again to raise the national debt. Our national debt will stand at over $3 trillion. Despite these staggering figures, and the fact that we are continuing to add at least a quarter of a trillion dollars to our national debt each year, a number of people are now arguing that our huge budget deficits don't matter and that recent favorable changes in trends suggest that a correction has already occurred in our budget and trade deficits.

I remain very concerned. Since 1980, three-quarters of our national gross savings has been borrowed by the U.S. Treasury. Our debt per capita has grown from less than $4,000 to well over $11,000. Had we invested much of these funds in our future, instead of consumption, one might make a case for such borrowing, but we did not. As one corporate executive recently stated, "While we are mesmerized by the debate over $100 million worth of aid for the Contras in Nicaragua, Japan rolls up a $40 billion trade surplus with the United States and the very sociocultural structure of our society erodes beneath our feet."

Some of the most troubling figures that result from our overconsumption are those that relate directly to American businesses--our costs of capital and our savings rate. The tremendous decline in national savings, both public and private, has forced the United States to borrow massively from foreigners and to reduce significantly our net domestic investment. Indeed, since 1985, over 60 percent of our net national investment was financed abroad.

The current national savings rate is the lowest rate we have ever had except in times of war or depression and by far the lowest in the industrial world. Our low rate of savings is caused both by the federal budget deficit and by significantly declining private savings.

This low national saving must eventually translate into low domestic investment. While we have recently been financing our investment through foreign borrowing, the U.S. economy must eventually pay its way. The United States has the lowest rate of net investment and not coincidentally, the lowest rate of long-term productivity growth among the major industrial countries. To a certain extent, we are not only mortgaging our future through foreign borrowing, but holding a "fire sale" of our assets at bargain prices in order to raise funds.

And the flip side of our low savings rate is a high cost of capital. A study recently released by the Federal Reserve Bank of New York indicates that the cost of capital for a research and development project with a 10 year payoff period in the United States is 2.3 times higher than in Japan, 73 percent higher than in Germany. Similarly, costs of capital for a factory with a life of 40 years in the United States are twice what they are in Japan, and one and one-third times higher than in Britain.

These increased costs are especially difficult because they come at a time when American business is being increasingly forced to manage for the short-term, with ever growing percentages of stock being held by institutional investors who are looking for gains over a single quarter, not years, and when the world economy will see greater competition that at any time in the past. Far more countries have access to capital and technology, and their workers have the skill to compete in manufacturing than ever before.

I look forward to the input we will receive this morning from our distinguished panel of corporate leaders from this community. If we are to tackle these problems, it will only come through a partnership between business and the government. The first step in solving our problems must be an honest recognition that our national debt is indeed a major problem which requires the urgent attention of business leaders and the Congress.

Senator **Sanford**. We have, starting at this end, leaders that I know have thought a great deal about this: A.F. Sloan, who is the Chairman of Lance, Incorporated; William Hackney, next, is the Chief Investment Officer of First Union Corporation; Crandall Bowles, the President of Springs Company and member of the Federal Reserve Board; Ronald Riley, the Chief Financial Officer of Royal Insurance; Omar Leatherman, that is not here yet, the Chairman of the Charlotte Business League; and Richard Osborne, Vice-President of Finance for Duke Power Company.

We'll start with Mr. Sloan.

STATEMENT OF A.F. SLOAN, CHAIRMAN, LANCE, INCORPORATED

Mr. **Sloan**. Thank you, Senator.

They picked a rookie to start off this morning. This is my first experience in this type of thing, Senator, and I appreciate the invitation to do it. I also am probably not the best witness to testify inasmuch as the subject matter really doesn't apply completely, or directly, I should say, to our company; and that being the Federal budget deficit and the national debt and its effect on the ability to raise capital to fund research and development; how it affects the long-range plans, and how it affects competition in the international and domestic markets.

We have not been about raising capital for some number of years. We do not borrow any money, so as far as the research is concerned, we provide what funds are necessary to do what we think is prudent and appropriate. Long-range plans, of course, get a little sporting when you consider the subject matter. And as far as competing internationally, at this point, we do very little offshore. However, we do a little bit, but that is no problem.

So what I am really saying is that as far as a direct impact in the areas of the subject matter, there really is not any. But I would be foolish to sit here and tell you that it doesn't have an impact on our operation. Indirectly, everyone that we do business with borrows money. And, of course, we know that the price of money is determined by the amount that people want to borrow and the amount that is available to be borrowed, and as you put it, the savings that are available and so forth.

But from the peanut farmer who borrows money at the very beginning to buy his seed and his fertilizer to start, to the person that he buys his machinery from, which he has a mortgage from—and he probably has a mortgage on the land—to the broker that buys the peanuts from him; and then the crop only comes in once a year, so he has to have that financed for the entire year. And it goes on and on and on.

And whether it be a flour supplier, packaging material or whatever—and even our good friends, Duke Power, who send us Reddy Kilowatt to work for us—all are dealing with borrowed capital, so it does come in through the back door. And, of course, as we all know, if we have to pay for it, the consumer in the end has to pay for everything. It has to be in our cost of operation and the price of goods.

And as you point out, Senator, the thing obviously is completely out of hand. I read just the other day, I think, for all nonfinancial corporations there is something like over $2 trillion in debt, and that is against a market value of about $2.4 trillion, so you can see we're pretty well hocked to the hilt there, as well as what we are with the Federal government.

I can't imagine—and maybe Bill, when he gets up here can make a wild guess at it—what the interest rate would be if we didn't have the national debt, and if we didn't have the level of debt that we have in the corporate community. But, gosh, I can remember back when you got, I think, on a savings bond 1 or 1½ percent. I do not think it'd be quite that low, but it certainly would be—certainly half or better of what it is today.

Some debt is good. We all know that, but, certainly it is excessive, and something needs to happen. One area which, of course, you folks in Washington talk about continuously and everyone is vitally concerned with, of course, is housing. Of course, the big ticket in housing is not the cost of a two-by-four, but the cost of the money that you use to borrow to build with or to pay for a house. So our housing problems would certainly be greatly improved if we could take care of it.

You know, Churchill once said that some see private enterprise as a predatory target to be shot; others as a cow to be milked. But few are those who see it as it is; the sturdy horse pulling the wagon.

You know, industry makes things and creates wealth and provides jobs and pays taxes, so they can't be all bad. And yet one of the—and we also know that bad things aren't done by bad people trying to do bad, but rather by good people trying to do good. And I speak of your colleagues in the Congress and in some of our other legislative institutions.

But the hidden loss that we suffer in our company, and I think all companies in this country—which comes back to play on where the money and what profits do we have to reinvest and rebuild industry and so forth—but the hidden loss is in us having to play defense all the time. Instead of making and selling products, which is the only way that we create wealth, we spend a disproportionate amount of our time guarding our backside.

As an example, in this State—we happen to do business in 35 States, but in this State there were about 4,000 pieces of legislation in the last session of the legislature. Well, if you multiply that by 35, you're up to 140,000 pieces of legislation in the area that we do business. And, of course, our good friend the Federal Register hit the peak of 87,000 pages in the year of 1980.

Well, it is mind-boggling, and it takes a tremendous number of people to try and keep up with what is the law; what's being talked about being the law; and I just can't believe that we need the equivalent at the Federal level of 85 complete Bibles in 1 year to tell us what to do or what we need to do. And that is about what it works out to. I think there is 1,192 pages in the Bible, so 87,000 would be 85 Bibles; 238 pages a day, and it is not a very good novel. The plot's not very good. It has got a lot of characters in it, but the plot's not that great.

But everything that comes up today is a legal or an accounting question which helps to make us a more service-oriented society rather than an industrial power. And certainly our colleagues across the water in Japan, they do not operate that way. But we're—as the Senator pointed out earlier, we're in hock. We used to say, "Oh, well, the debt doesn't make any difference. We owe it to ourself." That is not true any more.

As the Senator points out, we're in hock to foreign currency or foreign money, and someday, they—you know, they might just call our note. And, gosh knows, Bill, what the interest rate would be if all of a sudden you couldn't encourage the foreign money to take care of some of our debt.

But as the Senator pointed out, you know, we encourage debt and discourage savings and equity. Interest expense is a deduction. Interest on savings is taxable. Dividends are taxed twice: Once at the corporate level, and then once again when they go to the individual.

Japan, of course, saving rate is about five times what ours is. One little gadget they have in there—I was just over there about a month ago—is that interest on the first $22,000 there is no tax. So they have some incentives to save that we do not.

There are those that take pride in the fact that we're becoming a more service-oriented country, and that we're abandoning our smokestacks in industrial production. But I think this is very foolish and very dangerous, particularly if we were ever back into a maximum war-effort type thing. We pretty well let our steel go by the wayside. Our automobiles are more and more being taken over by the foreign producers, and I do not know how you produce tanks with accountants and lawyers. I do not want to pick on anyone in the room, but you need manufacturing plants to do that. And you need manufacturing plants to take raw materials and make it worth more money or to generate wealth.

You know, you create wealth by taking a raw material and making it worth more money through some efforts of some people. But in the service industry, there is not much of it that really is generating any more wealth. We're just shifting it around. The wealth was already here, and I think that leads to long-term problems.

But we need a structure to encourage capital, so that we can revitalize our industry. As I mentioned, I was over in Japan about 3 or 4 weeks ago with the Southeastern U.S./Japan Association which is a trade mission. And, of course, this is one of the things that the Japanese kept beating us over the head with; that we need to revitalize our industry, and also that we need to balance our budget.

Of course, they will pick at anything that they can, but we're going to have to listen to some of that. And whether we listen to that or whether we recognize it ourselves, we're either going to do that or we're going to have to learn to speak Japanese so we can communicate with our boss. And that is pure and simply the way that it is going.

As the Senator pointed out, I think the last figure I heard for this past year is about a $54 billion trade surplus for Japan to us. And that means those dollars are the ones that come back and buy Rockefeller Center and buy Columbia Pictures and all the other things. In the southeastern United States, the seven States that were represented at this meeting, there are now 631 Japanese-owned businesses; 235 of them are manufacturing facilities, 114 were added last year; 59,000 employees.

Now, the mission that was over there, I am sorry to report to you, it wasn't over there selling goods. They were over there, each of the seven States, chasing down prospects and saying "Please come and build or buy in my State," and I do not think that is the healthiest thing in the world. I am not anti-Japanese, but something has to be done about the balance of trade. And we pretty well communicated that with them; that they either had to buy more from us or we had to buy less from them, and it is that simple.

Of course, they do not work that way, and they'll give you a little crumb or a little scrap, and somewhere along the line I think it is going to have to be like Secretary Ling told them several years ago that—the gentleman said, "Well, you do not understand. We're self-sufficient in rice." He said, "Well, you do not understand, but we're self-sufficient in automobiles." Well, we get a load of automobiles in and we finally now can send them a boat load of oranges back over once in a while and a little bit of beef and a little bit of tobacco, which this State does have a surplus with, with the trade, because of the tobacco and the soybeans and so forth. But that certainly is not true.

But I am taking far too long on that. Senator, that is not exactly what you asked for, but that is what I am carrying today, and it basically boils down to, as the Senator said early on, that we are going to have to learn to live within our means. You know, the last 8 to 10 years haven't been all that bad. I haven't been around here quite as many years as some folks, but they haven't been bad at all from the standpoint of our economy and how we're going.

We keep saying that it is not, but if we can't pay our bills on a timely basis when it is that way, we're in deep trouble; and also put a little aside for the future to invest, to revitalize our industry and get back in their terms—the Japanese term is that we should "once again become a power." Well, that means they do not think we're very much right now, and I disagree with that, but we're certainly going in the wrong direction.

Thank you, sir.

Senator SANFORD. Thank you very much, Mr. Sloan.

Mr. Hackney.

STATEMENT OF WILLIAM R. HACKNEY III, CHIEF INVESTMENT OFFICER, FIRST UNION CORPORATION

Mr. HACKNEY. Senator, I appreciate the opportunity to represent First Union and express my views about the impact of the Federal budget deficit and the national debt on the banking industry.

As you are aware, much has been written and spoken about the evils of the chronic fiscal deficits and the growing national debt burden those deficits produce. My purpose this morning is not to recount shopworn viewpoints, but rather to offer you my own perspective on the problem. I say "my own perspective" because the management of First Union is a politically diverse and independent-minded group. If I were to offer testimony acceptable to everyone, my testimony would, of necessity, be so sanitized and watered down with generalization and consensus thinking as to be practically useless.

A superficial review of budget deficits and the national debt might lead one to conclude that this supposed problem has had no harmful impact on banking or the overall economy. Despite a burgeoning national debt, the U.S. economy has experienced a prolonged expansion in the 1980's. Over the course of this expansion, inflation has moderated, unemployment dropped, interest rates moved irregularly lower, and domestic banking enjoyed good loan demand with acceptable loss ratios and profit margins. In fact, during 1985 and 1986, when the deficit hit record highs of $200 billion plus, First Union and many other banks experienced record highs in their returns on assets and equity, two key measures of bank profitability.

If this happy set of circumstances were the whole story, I'd tell the politicians to keep on borrowing and spending. The real story, however, is that chronic deficits are of grave concern to bankers. Those deficits have impaired our ability to compete in world markets, undermined the creditworthiness of our customers, and blurred our vision for the future.

Taken by themselves, fiscal deficits and the national debt aren't overwhelming problems. In Japan, for example, central government debt represents a higher portion of GNP than here in the United States. Our problem arises from two unique features of our situation. First, our deficits have been financed with foreign savings, not with domestic savings. And second, the rapid increase in the Federal Government debt has been accompanied by equally rapid increases in consumer and corporate debt.

The 1980's are likely to go down in history as the decade of debt-mania. Never before during peacetime has total U.S. debt, both public and private, increased as rapidly as it has in this decade. We bankers are beginning to wonder if we've become unwitting "pushers" to a nation of "debt junkies." We've enjoyed good loan demand and reasonable profits during this period, but what is to become of us when our customers go "cold-turkey"?

There are several causes of this debt-mania, but the most important seems to be our tax system. The U.S. tax system encourages consumption at the expense of savings, and encourages debt at the expense of equity. It is a simple premise: If you tax something, you get less of it. For example, we fully tax interest income, but give a tax deduction for interest expense on debt to buy a home, a cabin cruiser that could be used as a home, or an entire company, for that matter. We tax corporate dividends once as profits of the company, and again as income received by the shareholders. We tax more risky capital gains at the same rate as less risky wage and salary income.

It is no wonder that a majority of the growth in bank loans to business over the past 3 years has come from mergers, acquisitions and leveraged buyouts. An LBO is simply a way to convert taxable earnings and dividends into tax-deductible interest expense. For incurring a big debt load, an astute financier gets a company, the former shareholders get big profits, and the IRS gets nothing since taxable income has been wiped out by interest expense. Meanwhile, the nation gets no new factories or new jobs.

Now, I am not suggesting that LBO's are bad for the economy. They can perform a very useful function. I am only suggesting that the tremendous buildup in debt in recent years has been the logical outgrowth of our tax code. The growth in debt has kept interest rates in the United States higher than they would be otherwise, and higher than interest rates in many countries in western Europe and the Pacific Basin.

High rates mean a high cost of capital for U.S. companies. For banks, a high cost of capital means that foreign banking companies can often underprice us and capture market share. For manufacturers, the high cost of capital means reduced incentives to invest in factories and machinery, the real engines of economic growth.

The banking industry has the capacity and the desire to make more loans to finance growth in productive capacity. However, we are seeing too few of these lending opportunities. That is because there are too few capital projects that provide high enough investment returns to cover the cost of capital. So rather than risk investing in what are called "greenfield plants," companies simply buy each other. Under the prevailing tax code, that is the common sense thing to do.

What can government do to lower the cost of capital and help the nation out of its debt dilemma? It can reduce its borrowing by curbing spending.

Would a tax increase be beneficial to lowering fiscal deficits? Absolutely not. The U.S. economy is now clearly showing signs of sluggish growth and problems in servicing its debt burden. As I said earlier, if you tax something, you get less of it. Increase taxes on either personal or corporate income, and you throw the country into recession. In a recession, the deficit goes up. It becomes a vicious cycle.

Government should not raise taxes, but it can alter the tax code to put spending and savings and debt and equity on more equal footing. In the short run, any reduction in incentives to spend and incur debt could hurt the banking industry by reducing loan demand. But in the long run, the banking industry and the nation would undoubtedly be better off. The cost of capital for American business would be lower, helping us compete more effectively in world markets. More debt—I should say more equity and less debt would improve the creditworthiness of our customers. And more domestic savings would put the American financial system in control of its own destiny.

Thank you.

Senator SANFORD. Thank you very much, Mr. Hackney. Now, Crandall Bowles, the President of the Springs Company.

STATEMENT OF CRANDALL BOWLES, PRESIDENT, SPRINGS CO., LANCASTER, SC

Ms. BOWLES. I appreciate being here. Springs Company is a privately-held holding company based in Lancaster, South Carolina which manages a variety of small businesses mostly centered in Lancaster and in Charlotte. I am really here sort of representing two constituencies today, first as a stockholder and as a director of a major textile company, Springs Industries. I'll have some comments on the effects of the Federal budget deficit and the debt on the textile industry, and then I'll have some comments on the effects on some of the smaller companies that I am affiliated with.

To start with the comments on the textile industry, everyone here is familiar to some degree with the efforts of the textile industry to get tougher regulations and restrictions on textile imports. We've worked through the administration. We've worked through, or tried to work through, the legislature without too much success at this point.

Just to give you a few statistics, the textile, apparel and fiber industries together employ two-and-a-half million people; two-thirds are women and a quarter are minorities. They're the largest employer in North Carolina; 40 percent of the manufacturing work force. Twenty-five percent of total manufacturing shipments in the State are affiliated with that group of industries.

On imports, somewhat amazingly, textile imports have tripled since 1980; displaced 300,000 jobs. Let me say specifically, relative to Springs Industries which I am familiar with, Springs Industries has prospered relatively because we've been able to strategically redirect the company into product areas that are not as affected by imports. Nevertheless, we are right now significantly downsizing our apparel division, which used to be a main source of profits for the company. The reason for that is imports. Imports first took the margins, and now have affected the volume of that segment of business, and we've really lost it.

I think of Ken Harbison as a very articulate exponent saying companies need to quit worrying about protectionism and try to be more competitive, I would say the textile industry has truly modernized and have spent $2 billion a year for several years.

We are universally recognized, even by foreign competitors, as being the most efficient textile industry in the world. Productivity has increased 4 percent a year for the last 10 years, as opposed to some of our other domestic manufacturing industries. So we feel that we have done our part, and have tried to get the government to do theirs.

That is really the ATM, my comments. The Senator has been very understanding and helpful in the efforts that we've made. But to get back and to try to relate this to the budget deficit, it would take a much better economist than I am to explain the intricacies of the connections between the Federal budget deficit through the dollar to the trade deficit. But clearly, there are strong and direct, or indirect, connections.

I think it is clear that we won't get significant improvement in our trade deficit until we get control of our budget deficit. Since the textile deficit accounts for a quarter of the total national trade deficit, we feel that we won't see much improvement there until we get the Federal budget deficit under control.

The smaller companies that I work with—I had some problem getting people to specifically address the impact of the budget deficit on their companies. People tend to respond in generalities, which I think reflects the fact that the main impact is through the overall economy and interest rates, cost of capital, and so forth.

I did ask some of the people who run some of these companies to comment directly on the questions that you asked us. The head of a medium-size life and health insurance company—one thing he pointed out was the desperation almost of the Federal government to increase revenues in almost any way that doesn't involve an upfront tax increase.

He mentioned several rather smaller measures, the implementation of which he said—well, he said these measures were kind of "silly" in his words, and "nonproductive;" have had an adverse effect on his business. One example he gave was charging $100 to fill out an annual pension form, which gets to be an onerous charge for someone with a small pension account. And there were some other small examples like that.

We have a small mortgage banking company, and, of course, he thought about the Federal budget deficit every day because of the impact on the interest rates which directly impacts his business.

We have a small machine tool company in Clover, South Carolina, and they feel that the most direct effect is through the effect on capital investment, which some of the others have mentioned and which is certainly a critical factor for that business.

Some general comments that I picked up from talking to these people—you asked for testimony on four specific areas in which the budget deficit or the debt impacts this. And two of those areas were the ability to raise capital and the ability to fund research and development.

I would say that the companies that I have been associated with, and most other companies that I know, probably up to United Airlines, have had little or no trouble raising capital in the last few years. There are plenty of banks and LBO groups still out there willing to invest dollars. The bankers have commented on this.

My husband is an investment banker and he would agree with that, and says that banks have become even more aggressive in their lending practices, and they're willing to lend money for these areas, which is what Bill was just addressing. Obviously one reason for that is the fact that the tax policy does favor debt over equity.

Clearly the tremendous buildup in debt must mean that interest rates are higher than they would be otherwise. That has to be true, but they obviously have not been too much of a drag on the economy over the past few years.

If you go back to the changing economics that I learned in college and business school, deficits are stimulative. They help the economy. Tax increases are recessionary. The downside of running deficits is supposed to be inflation, but the Federal Reserve has kept that relatively under control in the last few years. So I do not really think that we have seen an impact in those areas.

Your other two areas, long-range planning and competitiveness, I think it is a different story. Clearly the international competitiveness of the textile industry has suffered, indirectly due, at least in part, to the deficit. Our overall competitiveness in manufacturing industries has declined, as people have already mentioned.

My personal opinion is that a big reason for this is a lack of capital investment in technology, and education in particular. And I think it is a question of priorities, but I think they've been forced on us by the situation of the deficit.

Long-range planning, clearly the existence and the rapid recent growth of the deficit and the debt certainly increases the uncertainties of long-range planning, and surely has affected the willingness of corporations to commit capital.

Though the deficit perhaps hasn't directly adversely affected many businesses yet in a direct way, I think they all believe that somehow it will in the future. No one really knows exactly how, and really our country has never been in this economic situation before. But I think people are concerned about it and know that we can't keep on like this.

I talked to the head of a real estate company and he reflected the general opinions that I heard expressed when he said the deficit was sort of like a nuclear bomb; that it was lingering in the background. You were uneasy. You knew it was there. You didn't know what was going to happen to "set it off," so to speak, but you do not spend a lot of time worrying about it on a day-to-day basis.

I read in the Wall Street Journal after the most recent stock market crash the comments of a reporter who had interviewed several people on Wall Street and said that none of them had mentioned the deficit at all. And he concluded that people were just tired of talking about it, but yet you know that somehow it is connected even to the volatility of the stock market.

Finally, I think one of the most important effects of the deficit and the debt that has emerged recently is the focus on short-term budget manipulations rather than long-term substantive solutions. All the Gramm-Rudman-Hollings stuff, is that fiscal discipline or is it an accounting tricks? So I think people are aware of some of the gimmicks and things that have been used, and I think it undermines confidence in the whole process.

I talked with the head of a large communications company in the midwest who said he was very worried about the short-term focus of our government; the compromises that we're being forced into and the opportunities that we can't take advantage of.

And he said for the first time in his career he was worried about the future of the government for his children, and he thinks some of these trends are very dangerous for the long-term future of the economy.

That concludes my testimony.

Senator SANFORD. Thank you very much. I hope all of you will be thinking of questions that you might ask one another as we finish the testimony.

Mr. Riley of Royal Insurance. We're mighty glad to have Royal in North Carolina.

STATEMENT OF C. RONALD RILEY, CHIEF FINANCIAL OFFICER, ROYAL INSURANCE

Mr. RILEY. Thank you, Senator. As we've learned to say, "We're mighty pleased to be here too."

The property and casualty industry serves the American individual, business, public, and municipal entities by pooling their insurance risks to create a fund to pay for insured losses as they may occur. The U.S. property and casualty insurance is very much affected by the Federal deficit.

The most direct impact on the industry is through the Federal deficit's impact on interest rates, since interest rates materially influence the pricing of our products, as well as the value of public and private debt instruments that comprise the bulk of our industry's invested assets. The major indirect, but no less critical, impact is how the deficit affects our Nation's economic growth.

As the Senator can appreciate, the property and casualty industry provides insurance protection for most forms of economic activity, and also protects the stock of human capital and wealth that generates our national income.

Longer term, if our national fiscal policy were to harden, this country would be able to redirect its priorities from—instead of paying interest on past debt to foreign nations, the number of major condemning problems that would eventually relate to the property and casualty industry and the public.

For example, improving our Nation's infrastructure would lead to safer roads. This in turn would likely result in better auto-related loss experience, and therefore lower insurance rates for the automobile driving public. Similarly, I suspect that higher levels of research and development spending in this country would result in improved safety in the workplace and elsewhere, which would favorably impact the loss trends and the prices in a number of different lines of insurance.

Undoubtedly, there would be other benefits as well, but suffice it to say that the property and casualty industry is essentially a sharing mechanism for risk. To the degree the Federal government's fiscal and monetary policies succeed, both our industry and our customers will benefit.

Although my preceding comments focused on the property and casualty industry, Royal is also involved in the life insurance industry. I would like to mention another aspect of the Federal deficit—its impact on rates of inflation and interest rates, and therefore, on retirement benefits.

Simply put, I would observe that if inflation and interest rates are running too high, there is a sense of hopelessness that can develop among our citizens. They conclude that there is nothing worthwhile that they can do to help themselves save for retirement. So they do nothing, and the sales of retirement funding vehicles suffer accordingly. And correspondingly, the pressure on various levels of government is increased to redistribute what limited wealth the governments have.

It is far better that inflation and interest rates remain within a reasonable range so that individual Americans can see the wisdom and value of adding to their Social Security and corporate retirement plans through the purchase of supplementary retirement insurance vehicles.

The problem with the Federal deficit and with most numbers that come out of Washington is that they are so large as to be not relatable to the average American citizen. This morning I did a quick calculation which suggests the following: The average American family of four, the Federal deficit creates an implicit mortgage of about $45,000. This is something like having a 30-year mortgage where the payment is about $400 or $500 a month.

The problem with this particular mortgage is you do not get the house and you do not get the car while you're paying it off. To pay the mortgage off would require a 20 percent increase in the wages, probably over the next 30 years, or, alternatively, 100 percent increase in individual and corporate Federal taxes for the next generation.

Senator, the present situation is simply intolerable.

Senator **Sanford**. Thank you very much.

[The prepared statement of Mr. Riley follows:]

SUMMARY OF RONALD RILEY'S TESTIMONY
CHIEF FINANCIAL OFFICER
ROYAL INSURANCE

1. The most direct effect of the federal deficit on the property-casualty insurance industry is on interest rates; the second is its affect on economic growth.

2. The industry invests insurance premiums heavily in long-term bonds and is therefore very affected by swings in long-term interest rates. However, higher interest rates can mean lower insurance prices because projected investment income is taken into account in pricing insurance products.

3. Uncertainty surrounding the presistence of federal deficits promotes uncertainty and fluctations in financial markets, which results in unpredictable, unstable insurance market conditions.

4. In terms of trade, the primary insurance carriers were net exporters of insurance, but the prospect of continued federal deficits and therefore high real interest rates will make a positive balance of trade hard to maintain, due to the high dollar.

5. To the degree the economy grows less than it would if the federal deficit were reduced or eliminated, the property-casualty insurance industry is also slowed down.

6. Lower deficits would also allow priorities to be redirected to things that would lower costs to the property-casualty insurance industry: safer roads; increased workplace safety.

7. The effect on the life insurance industry is that growing deficits, inflation and high interest rates cause a sense of hopelessness, which discourages people from planning and saving for retirement.

Impact of the Federal Deficit
on the
Property/Casualty Insurance Industry

Statement by C. Ronald Riley, Chief Financial Officer, Royal Insurance
November 6, 1989

The U.S. property-casualty insurance industry is very much affected by the federal deficit. The most direct impact on the industry is through the federal deficit's impact on interest rates, since interest rates materially influence our product pricing, as well as the value of the public and private debt instruments that comprise the bulk of our industry's invested assets. The major indirect but no less critical impact is how the deficit affects our nation's economic growth. As the Senators appreciate, the property-casualty industry provides insurance protection for most forms of economic activity and also protects the stock of human capital and wealth that generates our national income.

The industry serves American individuals, businesses and public entities by pooling their insurance premiums to create a fund to pay their insured losses as they may occur. Between the time we receive the premiums and pay those losses, insurance companies are able to invest that portion of the funds not required for current operating expenses. Almost 70% of the roughly $475 billion in assets held by the industry at year-end 1988 was in debt instruments, mostly government and corporate bonds. The maturity profile of our industry's bond portfolio reflects projected insurance loss payments and is definitely weighted to the long end: more than 70% of our bonds are five years or longer in maturity and 45% are in 10 years or longer. This obviously leaves the market values of those bonds highly vulnerable to swings in long-term interest rates.

In pricing our insurance products, projected investment income is definitely taken into account. Therefore, higher interest rates can mean lower insurance prices and vice versa, since it can generally be said that competition drives rates to levels that should allow the industry as a whole to make acceptable overall returns on its invested capital. In other words, it would be fair to say that higher interest rates do not flow directly through to our bottom line but rather they help determine how we will price our current business. To illustrate this point, our industry suffered its worst overall operating results (including investment income) in the first half of the 80's, a time when the specter of persistent federal deficits was helping to raise the real rate of interest from the historical 2 to 3% levels to the 6 to 8% range. Nominal rates were of course dramatically higher at that time.

While a number of industry-specific reasons can also be cited to explain why property-casualty results were so poor in this period, we know that the sharp rise in both nominal and real interest rates contributed to the excessive insurance price cutting that resulted in unprecedented insurance industry operating losses through the mid-80's. Our industry has traditionally been cyclical, even under relatively stable financial market conditions. Uncertainty surrounding the persistence of federal deficits promotes continued uncertainty and fluctuations in financial markets, and our insurance pricing mechanisms have been operating in a manner that translates these fluctuations into unpredictable, unstable insurance market conditions. This can and does affect both the affordability and availability of insurance.

To the extent that the federal deficit contributes to debt market instability, it also affects the industry's balance sheets and net worth by altering the market values of our bond holdings (although for statutory reporting purposes insurance companies carry bonds essentially at cost). As the value of year-end 1988 bond holdings was almost 2.5 times our industry's net worth, you can see that the fluctuations in long term bond yields related to uncertainties on the federal deficit over the past few years have had a leveraged impact on the property-casualty industry's net worth. This in turn significantly affects our available financial capacity to write more business.

Although our industry is not heavily involved in exporting insurance services, our primary insurance carriers achieved annual net exports of exceeding $1 billion in 1986 and 1987 and $700 million in 1988. In the reinsurance arena, we were net importers of about $1.3 billion in 1986 and around $2 billion per year in 1987 and 1988. We currently expect that real U.S. interest rates will remain above their long term norms, partly due to doubts that concrete action will be taken to substantially reduce the federal deficit. To the extent that this contributes to the dollar's strength beyond levels appropriate to the fundamentals of our nation's competitive position in world markets, the property-casualty industry will be at a disadvantage in international insurance transactions.

Finally, we must address our industry's most fundamental problem concerning continued inaction on the federal deficit, as expressed in the following testimony given to the Joint Economic Committee last July by the head of a leading economic consulting firm:

> ". . .each dollar by which the Gramm-Rudman-Hollings targets are missed will likely be another dollar borrowed from abroad (and repaid by future generations with interest) or another dollar unavailable for private investment (to raise long run productivity and living standards)." Note: Testimony of Roger Brinner, Data Resources, Inc. Reprinted in D.R.I.'s 8/89 monthly review of the U.S. economy.

Like any other American business, the fortunes of the property-casualty insurance industry are very much tied to the growth of real economic activity and inflation. Higher real income and rising living standards favorably affect the demand for our personal lines of insurance. Similarly, the higher levels of real economic activity that create these incomes also generate a growing commercial exposure base requiring insurance coverages. Therefore, to the degree the economy grows less than it would if the federal deficit were reduced or eliminated, our industry's growth is also slowed.

Longer-term, if our national fiscal resolve were to harden, this country would be able to redirect its priorities to a number of major endemic problems that would eventually relate directly to the property-casualty industry. For example, improving our nation's infrastructure would lead to safer roads. This in turn would likely result in better auto-related loss experience, and therefore lower insurance rates for the automobile driving public. (Personal and Commercial auto coverages accounted for almost 43% of total property-casualty insurance in 1988.) Similarly, we suspect that a higher level of research and development spending in this country could result in improved safety in the workplace and elsewhere, which would favorably affect loss cost trends (and prices) in a number of lines of insurance. Undoubtedly, there would be other benefits as well, but suffice it to say that the property-casualty industry is essentially a pass-through mechanism for shared risks. To the degree the federal government's fiscal (and monetary) policies succeed, our industry and our customers will both benefit.

Although my preceding comments focussed on property-casualty insurance, which is the main U.S. business of Royal Insurance, they also apply to a considerable degree to the life insurance industry, of which Royal is a part. In addition, I would like to mention another aspect of the federal deficit -- its impact on rates of inflation and interest rates and therefore on retirement benefit plans which are an important source of business to the life insurance industry. Simply put, I would observe that, if inflation and interest rates are running too high, a sense of hopelessness can develop which leads our citizens to conclude there is nothing worthwhile that they can do to help themselves save for retirement. So they do nothing and sales of retirement funding vehicles suffer accordingly. Far better that inflation and interest rates remain within a reasonable range, so that individual Americans can see the wisdom and value of adding to their social security and corporate retirement plans through purchase of supplementary retirement funding vehicles.

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Senator **SANFORD**. Mr. Leatherman, we're glad to have you to represent not only your private enterprise but the Charlotte Business League.

STATEMENT OF OMAR LEATHERMAN, CHAIRMAN, CHARLOTTE BUSINESS LEAGUE

Mr. **LEATHERMAN**. Good morning. My name is Omar Leatherman. I am here this morning representing the Charlotte Business League. The Charlotte Business League is a minority trade association, and has been in existence for a little over 12 years in the Charlotte area. I am also a local businessman and the owner of a Chrysler-Plymouth dealership here in the city.

I very much appreciate the opportunity to stand before you today to testify on the effects that the U.S. budget deficit has on our economy and specifically the minority business sector.

I view the management of the U.S. budget in the same manner that I view managing my own company or my own household budget: Let's plan so you have revenue match or exceed the expenses. When your expenses exceed your revenue, then you have a deficit. Sooner or later something must be reduced. You can get the additional revenue needed from borrowed funds, or you can reduce your expenses.

President Reagan decided to allow the U.S. budget to run into the red and borrow money to make ends meet. Mr. Reagan cut a few expenses that he thought were less important than guns and airplanes. He cut expenses that wouldn't affect the people who generally voted for him, middle-income America.

Black Americans lost the chance that gave us the opportunity to break out of the cycle of poverty. The U.S. Small Business Administration gave aggressive assistance during the Carter administration to minorities, and that helped me get started in business—when the banks wouldn't loan me any money and my family didn't have any money.

The budget deficit has forced the government to reduce funding of the U.S. Department of Commerce's program called the "Minority Business Development Center," which is the only place minorities can go to get technical advice on loan packaging and marketing services that it will not cost your total seed money to utilize.

This deficit has not hit home yet. I do not believe that we have seen the real effect that is coming. We have all been doing well the last 6 or 7 years, and as a result, we haven't seen how the banks will begin to withdraw their exposure to high-risk loans for smaller businesses. Without the U.S. Small Business Administration loan guarantees, many small businesses are going to fail in the 1990's.

Unless the rules of the game are changed, the 1990's are going to be disastrous for minority and disadvantaged businesses. OK, that is the problem. I do not think it is fair for me or any of the other speakers here today to state only the problems without suggesting a solution.

I believe the possible solution is for the U.S. government to create legislation that will encourage corporations and the banking industry, through tax breaks, to invest equity funds in minority and disadvantaged businesses. Most small businesses are started up with personal funds, which are generally too few, and the entrepreneur finds that in a year the venture didn't work and then the individual is worse off than before.

If U.S. corporations are encouraged to create joint ventures as a result of Federal tax credits for minority firms, the first minority Fortune 500 company would be created within 12 months.

A tax credit such as this would pay the kind of dividends that will create the quality of businesses that will assist in reducing the deficit, and eliminate the need for a hearing such as this.

Thank you for your indulgence.

Senator **Sanford**. Thank you very much. Mr. Osborne.

STATEMENT OF RICHARD J. OSBORNE, VICE PRESIDENT OF FINANCE, DUKE POWER COMPANY

Mr. **Osborne**. Senator Sanford, ladies and gentlemen, good morning. I thank you for this opportunity to represent Duke Power Company with respect to comments on the Federal budget deficits and its effect on business.

I serve as Vice President of Finance and Chief Financial Officer of Duke Power Company, and my responsibilities include the company's accounting, financing, and investment functions.

Duke Power Company is the seventh largest investor-owned electric utility in the United States, serving approximately one-and-a-half million customers in the Piedmont region of North and South Carolina. Duke Power maintains and operates three nuclear generating stations, a coal-fired generating station; has numerous hydroelectric generating stations, in addition to a transmission and distribution network that spans over 20,000 square miles in the two States.

The comprehensive economic impact of the budget deficit is very difficult to measure or quantify, but its impact is at least partially reflected in the cost of financing. The budget deficit exerts upward pressure on interest rates, and this interest rate pressure has direct and secondary costs.

First, higher interest rates contribute to a higher cost of building the generating, transmission, and distribution systems required to meet the demand for electricity. Over time the deficit's effect on capital costs means higher rates for customers.

There is a secondary effect of the budget deficit too. Higher interest rates add to the cost of electricity, which then adds to the costs of industrial and other business customers, reducing their competitiveness.

The production and delivering of electricity is an extremely capital-intensive business. Consider the amount of capital that a utility must invest to produce $1 of electricity. At Duke Power Company, about $2.50 of investment will produce $1 of electricity. This ratio, of course, varies from utility to utility, but levels of investment typically range from $2.50 to $3.50 for each dollar of electricity produced.

As a comparison, the chemical industry, which you and I might see as representing heavy manufacturing industries, requires far less investment. Companies in that industry, in the chemical industry, typically require only about $1 of investment to produce $1 of product. So no industry is more concerned with and affected by the impact of the budget deficit on the cost of capital formation than is the electric utility industry.

The cost of financing the electric facilities needed to provide reliable service is a material part of the final cost of electricity. To meet the growing demand for electricity created by economic growth in the Carolinas, Duke Power added 3,211 megawatts of generating capacity—that is 3.2 million kilowatts of generating capacity—over the last decade; a 26 percent increase in the size of our system. To finance this expansion, Duke Power entered the capital markets more than 40 times, adding $2.6 billion in debt alone to our balance sheet.

As a corporate borrower in the debt market, the company has felt the impact of the Federal budget deficit. Increasingly, government deficit borrowing has pressured upward the price of capital, most easily seen in higher interest rates. Increasingly, government borrowing to finance the deficit has put the U.S. Treasury in direct competition with the private sector for available capital.

This has meant increasing government demand for capital in the world financial markets. Inasmuch as the price of capital, in the form of interest rates, has been pushed upward by the U.S. government's appetite for borrowed funds, the products of capital-intensive businesses, such as electricity, have become more and more expensive.

Higher interest rates directly and significantly affect the cost of power. Over the next 5 years, Duke Power anticipates long-term financings alone totaling over $1.3 billion. A 1-percent increase in the average interest rate on that borrowing equates to a $13 million annual increase in interest expense for us. For Duke Power, higher capital costs are quickly translated into a higher cost of service, and higher rates for our customers.

Now, this leads directly to the second detrimental effect of the Federal budget deficit. It undermines the international competitiveness of Duke Power's industrial and other business customers. Manufacturers in the Carolinas compete directly with other producers in the international markets. For many customers, especially manufacturers, electricity is a major input in their cost. To the degree that the effects of the budget deficit raise capital costs and, therefore, the cost of electricity, these North and South Carolina businesses are hindered in their competition with foreign producers.

In summary, the Federal budget deficit is a burden to Duke Power Company, a burden to the other electric utilities and users of electricity in this country. Chronic deficit spending leads to government competition with the private sector for capital, putting upward pressure on interest rates. This effect is especially harmful to a business like Duke Power's, which is heavily dependent upon capital for its growth.

Higher capital costs for the electric utility industry translate into higher bills for customers, who in turn suffer from rising costs in their efforts to remain competitive. In those ways, the Federal budget deficit is a threat to the economic well-being of the two Carolinas.

Ending the Federal budget deficit requires a combination of increased revenues and reduced expenditures. However, in the effort to close the budget gap, care must be taken to design revenue measures that do not themselves adversely affect productivity, the rate of personal or business savings, or the ability of business to raise capital.

The danger in any budget solution is that the burden of the deficit on American business is exchanged for an equally onerous tax burden. Either option short-changes the future. Global competition means that all business costs must be minimized, including capital costs and tax expenses. To whatever extent such costs exceed optimal levels, American business is less competitive. Poor productivity and high costs inevitably reduce the standard of living in this country below what might have been achieved with more prudent government policies.

Thank you.

Senator **Sanford**. Thank you very much.

Mr. Hackney, I think you raised a very serious question. It goes to a fundamental of the operation of the government, and that is the tax code and what its effect is on what's going on. You point out that the double tax on corporate earnings and then on dividends has long bothered a lot of people. You also point out the fact that it pays to borrow money instead of it raising equity, which bothers even more people now that we see the use of such borrowing in LBO's and hostile takeovers: the mortgaging of the company to pay for the company.

But we've had that kind of double taxation and that kind of deduction of interest for many, many, years. Why do you think we've got that kind of an explosion in debt now? Why has this become of increasing importance now, or a key to the problem now?

Mr. **Hackney**. Why the explosion and——

Senator **Sanford**. This double tax dividend has been a part of our tax policy for 50 years or more.

Mr. **Hackney**. That is correct. I think one of the reasons for the LBO boom is really the tax code, as I mentioned it, but also financial technology; the development of the junk bond market, if you will. That junk bond market has got a lot of criticism in recent times, but it performs an extremely useful function.

And the brokerage firms got into that initially, and once it got going and developed as a market, the banks have come along and as the market grew—and participated in LBO's, mergers, and acquisitions.

I think the debt boom of the eighties is a boom that was caused by a lot of factors. The Federal budget deficit caused the boom in—part of the boom in debt, but the Federal government is not the only culprit. Demographic trends, I think, explain a lot of the—demographic and social trends explain a lot of the buildup in consumer debt. And, you're right; we have always had double taxation of corporate earnings, both to the corporation and to the shareholder.

That did not appear to be a problem in the past, but as a result of that, or certainly partially as a result of that, we have seen our foreign competitors who did not have that type of onerous tax code become much more competitive than we have. And we have seen, because of developments in the financial arena, the ability to—a leverage of corporate balance sheet to a degree that we have never seen in our history.

So I just think right now, we are just on the threshold of realizing the problems that many people have talked about in the past, with respect to double taxation of corporate earnings. It didn't appear to be a problem in the past. Now, it is going to be a problem, and I think it has got to be part of the solution also.

Senator SANFORD. I do not disagree with any of that. Putting it into effect would be somewhat difficult. It would be hard to sell the idea of doing away with the taxation at the corporate level of dividends. It is certainly earnings, but it is properly taxed elsewhere.

But I do not know that you can do that right now, given our budget deficit. Can you justify that?

Mr. HACKNEY. One of the things I rapidly found out, as I am sure the other speakers did, is when you examine this problem and you've consulted with a lot of experts around the country as I did, is that there is no easy solution.

I realize that eliminating double taxation of corporate dividends would be a very difficult thing to implement, and may reduce the tax take to the Treasury. I would point out, though, that I think—and I do not have any answer to this—that a lot of—that the Treasury needs to look at how much income that they have lost due to the merger and acquisition and LBO activity.

I do not want to criticize that because my bank and other banks have done a lot of that financing, and we've got an investment banking department, and they like—you know, they like that type of business.

But I would submit to you that—take R.J. Reynolds. R.J. Reynolds' payments to the U.S. Treasury as a result of them being LBO'ed are much less than they were previously. And you might find, using the Senate's computers and some other consultants, is that if you reduced the double taxation of dividends, and that thereby reduced the LBO activity, you may not lose as much in corporate tax revenues as you think.

Senator SANFORD. I think there is something to be said for that, and it may very well be that that is true. Would not LBO's have gone on, would not RJR had gone on, even if dividends had not been taxed at the corporate level if we gave the credit for the interest paid on junk bonds? And if we permitted the carrying forward of taxes paid in the past, which, of course, we do? Our advisors tell us that except for the tax code, RJR could not have been as highly leveraged; and that the tax code made that deal possible.

Mr. HACKNEY. That is correct. I agree.

Senator SANFORD. How would we go about penalizing interest as distinguished from benefitting equity? How would you go about that?

Mr. HACKNEY. If you listened to my remarks, Senator, you realize I was very careful of how I put forth my views and the solution to this. You can't—the banking industry serves a lot of constituencies, and I mentioned the deductibility of mortgage debt. I didn't state an opinion on what ought to be done about that because we have a large mortgage banking operation.

You seem to approach the problem by saying that how do we deal with mortgage or with debt, the deductibility of debt; that that is the way the government ought to attack the problem.

That is certainly one way, but I also think the problem can be attacked on the other side by providing greater incentives for the buildup of equity. When you do that, your initial assumption is that if I give a tax incentive that helps equity, I am going to reduce the government's corporate tax revenues, or revenues from individuals; and, therefore, I can't attack it in that way.

I would just suggest to you that you may find upon study that providing more incentive for equity, you may find that that does not reduce—that that actually increases your tax revenues rather than decreases it. I submit that all this leveraging going on right now robs the government of tax revenues to a greater extent than anybody realizes.

Senator SANFORD. I think that is true. The question is how do we stop it? I wonder if someone else would like to comment on this business of the tax policy that favors debt over equity?

Mr. RILEY. While much has been made this morning of the fact that the double taxation of corporate profits and dividends has existed for some time, what has not been true of some time is the taxation on capital gains, and that has changed.

And so going forward, I think the desire to invest in equity is severely diminished. Now, as far as I am concerned from a personal view, the double taxation of corporate profits is sort of an old wound, and we all know when you get sick old wounds come up again.

The real problem, it seems to me, is the recent change in the capital gains tax, which is entirely unfair. It is not sound economics, and it is not justified by any fiscal policy. It is just clearly wrong.

Senator SANFORD. Let me dwell on that just a moment before we go away from that point, because when the tax reform bill was enacted in 1986, it announced rather broadly that the drastic reduction of the top bracket for tax increases was a trade-off for all so-called "loopholes," which is a sometimes unfair definition, but including capital gains.

Then because the tax was reduced, not too far away from what the capital gains bracket was, that that was a fair trade-off. So there are those in Washington that are saying "but a deal's a deal." What do you say about that?

Mr. RILEY. Senator, you're about to hear some very personal views. But as I recall the debate surrounding the tax code, the original impetus was tax simplification.

Senator SANFORD. Yes.

Mr. RILEY. I can assure you that the government did not succeed. If tax simplification was the major purpose, then fairness was a purely secondary consideration, and I would suggest on both bases the government failed.

The government must encourage private savings and accumulations of capital to be reinvested in the American economy, whether this comes about through increased IRA deductions, through increased pension funding.

If you go out and read some of the recent surveys right now, the sense of hopelessness that I referred to—there was a survey done several years ago in which a number of people were asked—and the results were categorized by age—do you suspect that the social security, or "OASDI benefits," as I prefer to call them, will be available to you when you retire? Something like one-third to one-fourth of the American population do not believe that those benefits will be there for them when they come.

Part of this is because of the shenanigans which is going on. Part of it is because of the fiscal and budget deception which has been on by including the social security program within the Federal government, which is now amassing a surplus, and it is a surplus because it is needed to fund those benefits, as you know, well into the 21st century.

Right now it is being included as an offset to the Federal deficit, which tends to make it look like the Federal deficit is improving. This, as you know, is not true, and if you were to take social security out of the government's budget and take a look at the trend of the real deficit underlying, it is getting worse.

And, in fact, as we all know, the social security program was outside the budget from its inception up until the mid-sixties or early seventies, as I recall, and it should be returned to that basis, and I know that you support that.

In addition, in so doing it that way, the American public would take confidence back into the social security system and begin to think about how they can reasonably save for their retirement. If this is not done, the pressure on the various levels of government to redistribute wealth for all sort of programs will continue. And that is simply not the right way to go forward.

Senator **Sanford**. I think that is right. Redistribution of wealth, at the moment, using the social security tax, is a very regressive tax, deliberately and needfully so it is used to redistribute the wealth and interest payments to people who have invested in government bonds, including foreign investors. But that is a redistribution in reverse of a magnitude that we probably have never before experienced. A side point.

Let's get on with this main issue.

Mr. **Osborne**. Well, Senator, if I could make two specific comments and one sort of general comment on the tax code.

Your point's certainly correct, that the double taxation of dividends has a long tradition in our tax code. What is new is the rollback that has gone on in the past several sessions of Congress of the dividends-received deduction, which further penalizes corporations.

In other words, if a corporation is seeking to make an investment in another corporation, the dividends-received deduction encourages that company to make the investment in the form of equity. As that continues to be rolled back and is now, I believe, 70 percent, the emphasis shifts gradually to making that investment in debt.

And I think it really just compounds the very problem that we're focusing on. And that is a bit of a change that has really emerged over the past, I would guess, 6 years.

The second specific point that I'd make is that the reduction in the tax rate, to both individuals and corporations, has reduced the relative advantage of using debt versus equity. And while it is hard to isolate that and look at that by itself without looking at the other things that are going on, a lot of analyses of projects, or takeovers or whatever people are doing, significantly change when you moved to the lower tax rates under the tax reform acts of the early eighties.

Beyond those two specific points, I guess in general, in response to your comment that how can we be looking at lowering taxes to incense people to make equity investments or not to make debt investments, I really do not know how the American tax structure came into being, and what its original intent was. And maybe it was very logical and created the right incentives at a certain time.

But the problem with the tax structure now is that it clearly encourages consumption rather than savings and investment. And I think everybody agrees to that, and that is certainly true in an absolute sense here in the States and is true relative to other tax structures you look at with our competitors overseas.

We do not depend on a value-added tax. We're much more oriented towards taxing of income and investments, and in some States, it is just tax—investments are just sitting there in the bank or in your safe deposit box.

I think that many businesses are torn by a desire that is driven by logic to see a significant overhaul of the entire tax structure to reorient it in a more constructive way toward favoring savings and favoring investments—and are torn with the dilemma that after all the activity of the early eighties, most of us would rather just see it left alone.

I mean, there is just a great reluctance to see this whole question reopened and have to go back and adjust every assumption that has been made for every capital investment decision that we've made over the past 5 years. And I think that is a dilemma that is very common in business and industry.

Ms. Bowles. I would certainly agree that there are a lot of distortions in the tax system that have had long-term—that have built long-term distortions into the economy. I think there are some other tax alternatives, such as perhaps the gasoline tax, that I do not know why we do not consider more seriously.

I would say one thing with respect to the proposed cut in the capital gains tax that you all have been discussing up here. You know, I feel that that is another thing that the budget deficit plays a greater role in. In terms of the short-term impact of that cut, I think that that—the short-term impact on the budget deficit probably had a more important effect on that proposal than it should have.

I know that the government's estimates of the lost revenue in ongoing years from making that capital gains tax were much greater than the amount that they proposed to earn from it in the initial year or two. And I think that is another example of the distortion of the deficit; just the way that that capital gains tax is——

Senator Sanford. The advice to get a little money in there now to meet Gramm-Rudman that would cost $70 billion over the next several years in loss of revenues was one thing that caused them to retreat to just a little window and a little short capital gains, which obviously wouldn't have a whole lot to do with the long-term investment incentives. That is probably one reason that the push for a limited capital gains reduction has stalled.

There are a lot of things that we could elaborate on, and I'd like for you to ask one another questions if you care to. But let me point out two things that we've been trying to do.

Nobody much is looking at a restructuring of the tax code. A few technical corrections last year, you remember just a few technical corrections came out in the book about 12 inches thick. This is the flat simplified tax code.

Nobody is looking at a fundamental restructuring of our tax code, but some are considering looking at some parts of it. For example, we had proposed that there ought to be some relationship between buying a corporation through an LBO or takeover and the rule that you have for lending an individual money on buying a piece of that corporation, which is a margin of 50/50.

The proposal we've considered is that if you wanted to buy a corporation or leverage out a corporation in which you were involved, then you couldn't use more than 50 percent of that particular piece of corporate security to finance it; meaning you'd have to put in your own money or find equity for that amount or keep equity that was in there.

We haven't gotten too far with that, but that is one proposal, and we've got some leverage buyout legislation that is being considered this very week. It'll be introduced next year.

We've got some other things in there that have to do with notification and things of that kind. But the basic proposal was that we treat a whole corporation like we treat a block of stock. Such a proposal would have some effect on highly leveraged transactions and certainly would have changed the RJR buyout.

In addition, Senator Bentsen has been considering a change in the loss carryforward rules for taxes paid in previous years by the operating company before it was leveraged out that should pass this year.

So those are the only two pieces of legislation that I know of right now that affect directly what you were talking about.

Now, on the broader aspect of the budget and the debt and the deficit to cover up the social security, we've done a great deal of work on that. We've had hearings on a bill that our office has prepared over the last year-and-a-half that we call, in shorthand, the "Honest Budget Act." And I want to mention this because it relates, to the subject of this morning's hearing, but I do not want to turn our discussion entirely to it.

I would do a fairly simple thing that I would hope would have fairly profound results. The problem with the budget is not only do we have a constantly decreasing deficit, but we've been contending that we've got a constantly decreasing deficit year by year. Just on nothing but the moral side, the fiscal responsibility side, we're lying because we are not reducing the deficit. Otherwise, we wouldn't be going back this week to vote for a $3.1 trillion debt ceiling.

And we're doing that not only by social security, but we're doing it by a half-a-dozen other fairly substantial things. We take interest, for example, that is paid to social security. And it is just like interest paid to First Union on any portfolio. It is interest paid by the government to the purchaser of government bonds. We do not ever get it back. Yet we count what we pay social security as a receipt, and so that'll cover up about $75 billion of deficit.

And it is truly just an outright fraudulent bookkeeping device that if anybody in your corporation did, we'd send you to jail. And I want to make certain when they start sending everybody up in Washington to jail that I have been on the other side of this issue all the time.

But by taking everything off of the budget, social security trust funds, and others you still leave all kinds of devices that can be used to cover up the debt. We can slide payrolls across the fiscal year boundaries. We can sell Amtrak again. We've sold it three times since I have been in Washington and counted the several billion dollars that the projected sale would bring to cover up for part of the deficit.

We do not spend the highway money and the Air Force money because as long as we keep such monies in the trust fund year by year, it looks like we've got less deficit than we have. In order to stop this hiding, I put one of the early bills in the first year I was in Washington to take social security off budget.

But the more I studied the budget, the more I decided that you had to take all of the gimmicks away. And defining deficit seemed to be a very simple way to do it. What is "deficit"? What would any accountant say the deficit is? It is the increase in the debt. That is the government's bottom line; it is how much more money we had to borrow to make things come out.

Well, if we did that this year, the deficit would be $270 billion, not the $110 billion that we claim it is using all these gimmicks. The deficit is $270 billion. My point is we ought to say it is. So my bill would simply declare that the deficit is the increase in the debt. Then that leaves a very clean cut operating budget in the middle. If you've got all the trust funds off to one side and all the interest and debt off to the other side, you've got an operating budget that you can put in three categories; entitlements, defense, and all the rest of the government.

And in round figures this year, defense would be about $300 billion, entitlements—now, "entitlements," we've somehow got where we think that means giveaways. Maybe it does, but those are veterans programs, student loan programs, food stamps, farm programs. "Entitlement" simply means that somebody qualifies, and consequently is entitled to participate in this program, $175 billion; then all the rest of the government about $175 billion.

So you can see the magnitude of the debt compared to that. The interest on the debt is almost as much as national defense, and over $100 billion more than all entitlement and over $100 billion more than all the rest of government. So it is not going to be an easy problem.

But this is our bill, and if we get this adopted, at least we will have an honest presentation. Then we can see what to do about it. It is kind of a first step, and the first step is to be honest.

The other interesting thing that Ron brought up is the social security money, and I want you to think about this a little bit and maybe comment on it. Several of you would be in a particularly good position to comment on it.

We invested our social security reserves in a pretty shaky investment—government bonds. There is nothing safer than a government bond, but safer for how long and for how much? We expect this Social Security reserve to build up to about $15 trillion. We expect it will not start paying out—that is paying out more than it takes in and start downward from that reserve—until the year about 2020.

So between now and 2020, we're going to be accumulating an increasing amount each year of reserves that we are required by law to invest in government bonds. So in the year 2000, and we'll just have to speak of constant dollars for simplicity, we will have the government $15 trillion in debt to the social security reserves. Where are we going to get the money to pay off the social security beneficiaries? That is possibly why a lot of people think they'll never get their social security payments.

Now, can we afford to leave that money in government bonds? And if we do not, how can we invest it in a productive way that will be available when we need it and will be saved in the meantime? This is a fascinating and difficult question.

Where would you put that money, Ron?

Mr. Riley. I have just two brief comments, Senator. The creditworthiness of government bonds is not related to the fiscal prudence of the government. It is related to the availability of the printing press in the Treasury Department. If the government were a private citizen, a finance counselor would come in and cut the credit cards immediately.

And yet, what we have going on in government is considered, "the American way of doing business." It is not. I understand the social security problem reasonably well by virtue of being trained as an actuary. It has been a nemesis which I have been familiar with for a number of years.

It is a great program, born out of desperation, born by a great man, in a time of very much needed—and is still very much needed. The program has been misused and abused. I think long term, the government has enough examples of very fine programs that were very helpful.

I would show one—I would say one, the National Student Loan situation, was a very helpful program in the beginning, and—although in the last 10 years it has been abused by a number of educational institutions and by a number of students too.

But there are worthy places that that money could be put. The whole concept of building increased infrastructure—I mean, North Carolina in particular has had a program that suggests that we ought to have infrastructure, a roadway, such that major corporations and individuals are no more than 10 miles away from a major four-lane highway. The highways in the State of North Carolina could be improved, but that has to be done in cooperation with the Federal Government.

But they could all be improved from a Federal safety standpoint, which would reduce pain, suffering, the incredible medical expense. The $15 trillion—think of what a dent that could make in the environmental waste and pollution problem that the American society is going to live with for a very, very long time.

These are the endemic problems in society that must be dealt with.

Senator **Sanford**. You are saying these funds could be loaned to States for highway building and things that you would consider a good investment in your portfolio?

Mr. **Riley**. Yes.

Senator **Sanford**. If Duke University could invest its funds in a widely diversified portfolio, social security could too?

Mr. **Riley**. Certainly so. But certainly it can't be invested in the American industry directly by owning an industry.

Senator **Sanford**. And if you tried to put it just in equity stock, you'd buy up all the stock currently available.

Mr. **Riley**. That is right.

Senator **Sanford**. Let me put this problem now in one other way, and this comes back to solutions, if solutions are needed. It is not possible for many people in political life to propose taxes. That is just one of the things you do not mention. In fact, we've seen a successful presidential candidacy on the basis of no new taxes under, presumably, any circumstances.

Indeed, there will not be any new taxes if the president doesn't take the initiative. Under the Constitution and under our laws of who prepares the budget, the President must prepare the budget; and must make the presentation to the Congress. Specifically on taxes, the President must make by request to the House of Representatives, which has that Constitutional exclusive authority.

So there will be no tax increase or additional revenues raised unless the President wants to do it. I am not suggesting that we answer the question of do we or don't we, but let me put it this way: let's look at the money that comes in from tax revenues; that is, the income taxes, the excise taxes, the other taxes that include customs and revenues of that kind, but excluding, of course, the taxes for social security, and other specialized taxes that have nothing to do with the operating budget.

If you take that money that comes in, it just about balances out with the cost of government; the operating budget or middle of those three categories I mentioned. In 1988 tax revenues would have been about $25 billion, short of our operating expenditures, so it is a manageable figure. That is why I require that our operating account always be balanced in the bill I have proposed.

Of those dollars that come in in 1990, 39 cents of every dollar goes to carry the debt; to pay interest.

Now, in my bill I propose in the account consisting of the national debt and interest on that debt that we include a Gramm-Rudman-like reduction goal there, but we are reducing then the real deficits instead of the dishonest deficits that we are now using.

But if you stop to think about how are you going to reduce just the carrying charges that amount to virtually 40 percent of the budget income, I am very concerned about how we can do it. Certainly, it cannot be done all at once without shattering the economy. That is the problem.

Provide in my proposal that the President can, if he wants to, propose a tax that is totally dedicated to debt reduction exclusively;

it can't be used for anything else. It goes in back through a trust just to avoid the temptation of a chance to divert it to anything else. But it is purely for debt reduction.

Now, I do not know whether I propose that or whether I just put it out there as a structure that the President can follow if he wants to.

What about it? How many of you would favor a tax increase if the tax revenues were exclusively used to reduce the national debt?

Mr. SLOAN. Well, Senator, it is back to the old game, as to how it is going to be played. Now, you can do that, and I think most of us would be receptive to the idea. But if we're going to have two different pots, and over here we're going to have the debt pot and we're going to take this tax and we're going to reduce that, but we're not going to control the spending pot—and it is gone up on that side— then we've accomplished nothing. And I wouldn't work for it for a New York minute.

But, now, if we're playing it all across the board, then I think obviously you may get some support for it.

Senator SANFORD. Well, we've been playing it all the way across the board, of course, and we've been unable to conceal it by playing it all the way across the board. I may not have emphasized it enough, but under my proposal, the operating budget must be balanced, which would mean in 1988 it would have had to have been cut $27 billion. Therefore, the spending side would be cut.

Mr. SLOAN. So with the tax that you would be suggesting.

Senator SANFORD. The tax wouldn't have anything to do with the operating part of the budget—the middle column—because this presidential tax would be exclusively held for debt reduction in the third column.

Mr. SLOAN. But at the end of the year the net result would be that the Federal Government would owe less money than it did before.

Senator SANFORD. Yes.

Mr. SLOAN. Well, then, I think you might get some support on that.

Senator SANFORD. Of course, you couldn't even get the debt service out for several years. You couldn't hope to stop this buildup of deficits and debt for several years. You just couldn't put that much more tax burden on the economy.

Ms. BOWLES. Well, I think people are all in favor of reducing the deficits, but I think you might have two problems with it. And one, I think people are just skeptical, you know, that you've taken something out of one pocket and putting it in another.

And the same kind of thing; people saying that despite explanations, people just think that it is another gimmick of the government, and so forth. And I think that they would be skeptical that it would really accomplish what it set out to.

And then I know there are lots—I mean, I think somebody recently raised the idea of a surtax for the drug war, and I think you just get into—I mean, I could think of things I'd rather pay taxes for than reducing the budget deficit. You know, if you start——

Senator SANFORD. Well, I am not talking about deficit. I just wanted to make that point, people do not really understand what a "deficit" is, and a deficit as such is not really dangerous. It is the pileup of the debt, if we've got a danger, and that is the subject that we're trying to get at. Do we have a danger in this rising debt?

I think you're right, but can you spend money for those other things if you do not get the debt under control?

Ms. BOWLES. That is the dilemma we're in now.

Mr. SLOAN. Well, if you ever get the debt under control—and you're never going to do it if you do not get started—but if you do, you will reduce over a period of time, an extended period of time obviously, the service, the cost of servicing that debt which would free up some money to do some of these other things. But you can't do all of them at one time.

Japan put in a 3 percent consumption tax, across the board.

Senator SANFORD. Let me get an answer from the rest of you all. Would you favor a tax increase if we did indeed find a way to exclusively restrict it to debt reduction?

Mr. RILEY. As Mr. Sloan suggested, if the true deficit is held constant in the current year, then such a tax to repay the principal, I would support.

Mr. LEATHERMAN. I agree.

Mr. OSBORNE. I think we would agree that the problem with the deficit, the debt is so significant and serious, such a threat, that some combination of taxes and expenditure reductions to deal with that problem is justified. The question is how are those cuts and tax increases designed and implemented?

Mr. HACKNEY. I would not be in favor, Senator, of such a tax. There is a myth out there that Ronald Reagan slashed taxes and created this large budget deficit. In fact, if you look at the government's tax take relevant to our gross national product, all of the various changes in the tax code—the reductions, if you will—over the last 6, 7, 8 years—all that did was to curb the runaway tax bite on the U.S. economy and bring the current tax bite on the U.S. economy back to levels that we "enjoyed," if that is the right word, in 1970, in the seventies and the sixties and the fifties.

And a tax dedicated to debt reduction, to me is—you sort of set a dangerous precedent that, you know, if we're really profligate spenders out there, we can always come back and tax things into line.

I look at the government's tax take relative to the economy. I think it is still pretty darn high, and I'd hate to see it increase any.

Senator SANFORD. I think you express the view of almost everybody in the country, but are you also saying let the debt continue to pile up?

Mr. HACKNEY. I am—well, I do not for a minute expect a quick solution on the budget deficit. I think a quick solution would throw the economy into a recession. What I am simply saying is that I think that we just have got to nibble away at spending, and do things with our tax system to incense growth in corporations so they will produce profits that can be taxed.

Senator SANFORD. You certainly understand compound interest. But this debt now is the victim of compounding, and by 1993 the interest will be over $300 billion. In other words, at the present projection, even if you cut out all of government—all of government—I am not talking about national defense and entitlement, but all the operations of the government from the White House to the Coast Guard to Yellowstone National Park—you still have it compounded.

So cutting is indicated, and we certainly ought to cut out all unnecessary and wasteful things. We've been working at it pretty thoroughly, but how are you going to stop the compounding?

Mr. **Hackney**. You can't stop the compounding. And I—Japan, if you looked at—I mentioned Japan in my remarks. Their total debt to GNP is higher——

Senator **Sanford**. You said that, and I do not like to get into debates over statistics, but I doubt that. Our debt is 60 percent of the GNP. Our government debt.

Mr. **Hackney**. The Federal government debt is about 60 percent of GNP?

Senator **Sanford**. Yes. It is a little more than 60 percent; it is about $3 trillion in debt compared to $5 trillion in GNP.

Mr. **Hackney**. And total debt in the United States is about 180 percent of GNP?

Senator **Sanford**. Oh, at least. You're talking about corporate debt?

Mr. **Hackney**. Corporate and consumer, you add it all up——

Senator **Sanford**. It may be more than that if you add all the consumer debt to corporate debt. I didn't mean to debate statistics or facts except to say it may very well be that we can let this compound forever, as long as we've got a printing press. But is that a sound policy? Do we want to go that far? How will we stop the compounding if we decide we need to?

Mr. **Riley**. Senator, the problem is not compound interest. The problem is compound lack of interest.

Senator **Sanford**. Thank you.

Mr. **Sloan**. Well, Senator, one thing I think, too, that—of course, it is not impressive to say you're holding a stick of dynamite in your hand. You've got to have something nuclear nowadays to really make an impression.

But I think we've got a stick of dynamite in our hand that the fuse is lit on. We forget, or tend to forget, that while the servicing of the debt costs what it does today, we all are crying in our pension funds and so forth when we see that 14, 14¾ percent government stub falling out that is paid. I do not believe you've got any more down there, have you, that we could buy today?

Mr. **Hackney**. No.

Mr. **Sloan**. But those rates could get back up there again, and you're talking about cost of servicing it now, if all of a sudden you were looking at those kind of rates—and it would be a never-ending thing, that it could keep going. So I think something has to be done about it.

The costs of the cutting side absolutely has to happen. There is no way you can accomplish even a whittling of it without that. I mentioned that Japan put in a 3 percent consumption tax, which got about half of them thrown out of the Parliament, I think, but it was very popular.

But it was across-the-board, and they didn't take into consideration any socioeconomic level or anything else. You buy it; you consume it; you eat it or whatever; and you pay the 3 percent.

I think if something was proposed in the way of additional taxes, then we'd have to be awfully careful as to what kind of game was played with what's going to be taxed and where the money's going to come from.

Senator **Sanford**. Oh, absolutely. And the subject obviously would be so controversial and complex, and I didn't want to get into this particular hearing. But I did want to get a feeling of whether or not I think this problem is getting out of hand, and had we better start showing a greater interest in the fuse burning on down. You do not need to worry about atomic. That dynamite will do all the damage——

Mr. **Sloan**. Up close, it is still pretty effective.

Senator **Sanford**. Let me thank all of you for coming and sharing in all this and being here. One of the main things we do have to do is to show a great interest in this problem. It is so easy in Congress to just sort of coast along.

The President sent this budget over and it is so neat and nice. We get to arguing at great length about $14 billion when the problem's really $270 billion. And I think we will continue to work on the budget to see what we can do.

[A comment was made to the Senator from the audience, outside the hearing of the reporter.]

Senator **Sanford**. That probably adds to the fact that we've got problems, and all kinds of lost opportunities. We're not running the Head Start programs like we should, and consequently are setting up many, many school dropouts. We're not doing for housing what we should. We're not doing for highways what we should.

And can we do any of these things until we get our fiscal house in order? That is the question for the Budget Committee.

I thank all of you for coming. I certainly thank all of you for not only being here, but for the thoughtfulness with which you prepared your statements and testimony, all of which were very, very helpful.

We are going to put this testimony to good use, and I hope that out of it, we can finally work our way toward the kind of solution that will make us a stronger Nation. That is what we're trying to do, and I thank all of you for your help and your concern.

I appreciate it very much, and we'll stand adjourned.

[Whereupon, at 11:50 a.m., the hearing adjourned, subject to the call of the Chair.]

CLOSING STATEMENT OF SENATOR TERRY SANFORD

NOVEMBER 6, 1989

I am afraid that we have run out of time this morning for further consideration of what I think we can all agree is a complex and important topic.

I would like, first of all, to thank our very distinguished panel of witnesses for their excellent testimony and thoughtful responses. I may have follow-up questions for some of you and would ask you to submit those reponses in writing so that they may be included in the record. I will also keep the record open for a few weeks, so that any of you in the audience who have comments or suggestions that you would like made part of this record can send them to me for inclusion in the record.

In closing, I would note that I have been concerned for quite a long time, certainly before I was elected to the United States Senate, about our national debt and the constant deficits we have been running in the past decade. Serving as a Senator has only heightened those concerns.

As many of you know, on the first day of this session of Congress, I introduced legislation to put in place a framework to address the problem of our tremendous budget deficit. This bill, S.101, takes the first step in attacking the problem by calling for an honest budget. It would set out our federal budget in three separate accounts--a retirement account, which would include Social Security and other retirement trust funds, an operating account, and a debt and deficit account.

I have called for these three accounts for a number of reasons. First, a separate retirement trust fund account would both protect the integrity of Social Security, and prevent Social Security surpluses from being used to mask the size of our true deficit. Second, I have called for a separate operating account so that a requirement can be put in place immediately to require those operating funds to be balanced, so that the federal government couldn't continue to spend more than it takes in through revenues. Finally, I believe the establishment of a separate deficit and debt account allows us to get the debt out there where the American people can clearly see it and can understand how much it is. It is only through an honest look at the size of our debt that we will be able to create the will and demand to do something about.

I thank our witnesses today, and those of you attending, as well, for I think your presence and the remarks that have been made this morning help underscore the need to get on with resolving our debt problem. Until there is a greater consensus that we cannot run the kind of debts that we are running and that our decision to do nothing about it is hurting the competitiveness of American business, it will be difficult to muster the politcal will to address the debt problem honestly and quickly.

I appreciate the contributions that each of you have made this morning to our understanding of the affect that the federal debt has on you and your business.

The Committee on the Budget now stands in recess.

Terry Sanford
United States Senator
for North Carolina

News Release

HEARING ON BUDGET REFORM
BEFORE THE SENATE COMMITTEES ON GOVERNMENT AFFAIRS AND BUDGET
OCTOBER 26, 1989

THE HONEST BUDGET ACT

The hearing this morning is very timely. We are now grappling with reconcilliation legislation to bring us down below a deficit we can claim is below $110 billion. Once again we are telling the American public that we are reducing our deficits and will soon eliminate them altogether. And we are doing this within a few days of increasing the debt limit for the second time this year.

If we are reducing our deficits, why then are we increasing the debt limit? If we really are on a path to deficit elimination, we should be lowering the debt ceiling, not raising it again. My call is for an honest budget.

I have several charts to illustrate my point. During the 1980's we have moved from a deficit just below $1 trillion to one projected to reach $4 trillion in Fiscal Year 1993, when Gramm-Rudman-Hollings targets are scheduled to reach zero.

The second chart illustrates the cover-up. In Fiscal Year 1988 we claimed a deficit, under Gramm-Rudman-Hollings, of $155 billion, yet we actually increased the debt that year by $255 billion. That leaves $100 billion in "creative accounting" tricks that I believe should have been included in our deficit figure for 1988. The deficit in 1988 should have been $255 billion, not $155 billion.

If you look at the Fiscal Year 1993 projection, you will see that the deficit cover-up grows dramatically, to over $300 billion! The Congressional Budget Office estimates that our debt will increase by $307 billion in 1993, the year Gramm-Rudman-Hollings is scheduled to reach zero.

Now I appreciate that the CBO figure of $307 billion is a baseline projection derived from current services. This figure does not reflect deficit reduction activities between now and 1993, so I will adjust that number. OMB claims, for the purpose of sequestration, that our deficit for Fiscal Year 1990 is $116 billion. If you subtract that from the projected debt increase of $307 billion, the real deficit in 1993, as I would define it, will still be nearly $200 billion, not zero.

The cover-up involves primarily the following: the use of trust fund surpluses; the use of phony assumptions, like the sale of AMTRAK; and the use of net interest figures instead of gross interest figures.

We may never be able to eliminate the use of phony assumptions, but we should continue to try. We can insist on the use of gross, bottom line figures, and this brings us much closer to honest deficit numbers, with of without phony assumptions.

We can no longer afford to continue the deceitful budget practices of the past that have already weakened our future. More than ever before, the United States of America is living on borrowed time. The cover-up must stop now!

This brings us to the purpose of the hearing today--process reform. I am a Senator who believes that budget process reform is needed. However, I understand that process reform alone will not get us out of the very deep deficit pit in which we now find ourselves. We will only accomplish this with proper leadership from the White House combined with Congressional determination to make the difficult choices that will work.

Process reform can facilitate action by laying the necessary groundwork. It can provide the plan to help us make those hard choices honestly, without games and gimmicks. S.101 proposes to do just this.

"The Balanced Budget and Debt Reduction Act of 1989" has been crafted to require full disclosure of deficit defined as annual increase in the public debt subject to the limit. S.101 will not guarantee success, but it will lay the right foundation, promoting needed action to eliminate our annual deficits, and facilitate substantial reductions in the Federal debt.

S.101 is quite simple. It divides the unified Federal budget into three accounts: the Retirement Account, the Operating Account, and the Debt and Interest Account. The results could be quite profound.

The Retirement Account includes receipts and expenditures for Social Security and other Federal retirement programs, including transfers of employer contributions from the Operating Account. This also includes interest paid by Treasury to these trust funds for securities held in trust. The budget process now, astoundingly, allows Treasury to count this payment as a receipt which, of course, allows for a net interest figure substantially smaller than the bottom line, gross interest figure.

The Operating Account includes all receipts and expenditures of Federal entities other than those in the two other accounts. The Operating Account reflects current receipts and current appropriations, and S.101 requires that this column must be balanced, or subject to a point of order and sequestration.

Finally, the Debt and Interest Account includes changes in the public debt and interest on the public debt, and defines deficit as simply the increase in the debt. Interest displayed here includes payments to the retirement trust funds and other accounts, and cannot be treated as income to mask the total amount of (gross) interest actually paid.

The Debt and Interest Account also establishes a schedule of deficit and debt reduction targets. It creates a trust fund for the reduction of the public debt subject to the limit, and provides for enactment of dedicated debt-reduction taxes, if called for by the President. Any new revenue must be solely dedicated to the reduction of deficit and debt through this trust fund.

This is my plan. When you examine the numbers in each account, the bottom line numbers in each account, our problem becomes clear. Our problem is the interest we are paying to service our mounting debt. The Operating Account is not that much out of balance now.

My final chart shows each account. Using Fiscal Year 1988 budget figures--figures we know to be true--I can further illustrate how the budget would be laid out under S.101.

The Retirement Account shows a surplus of $88 billion that cannot be used to offset our deficit for that year.

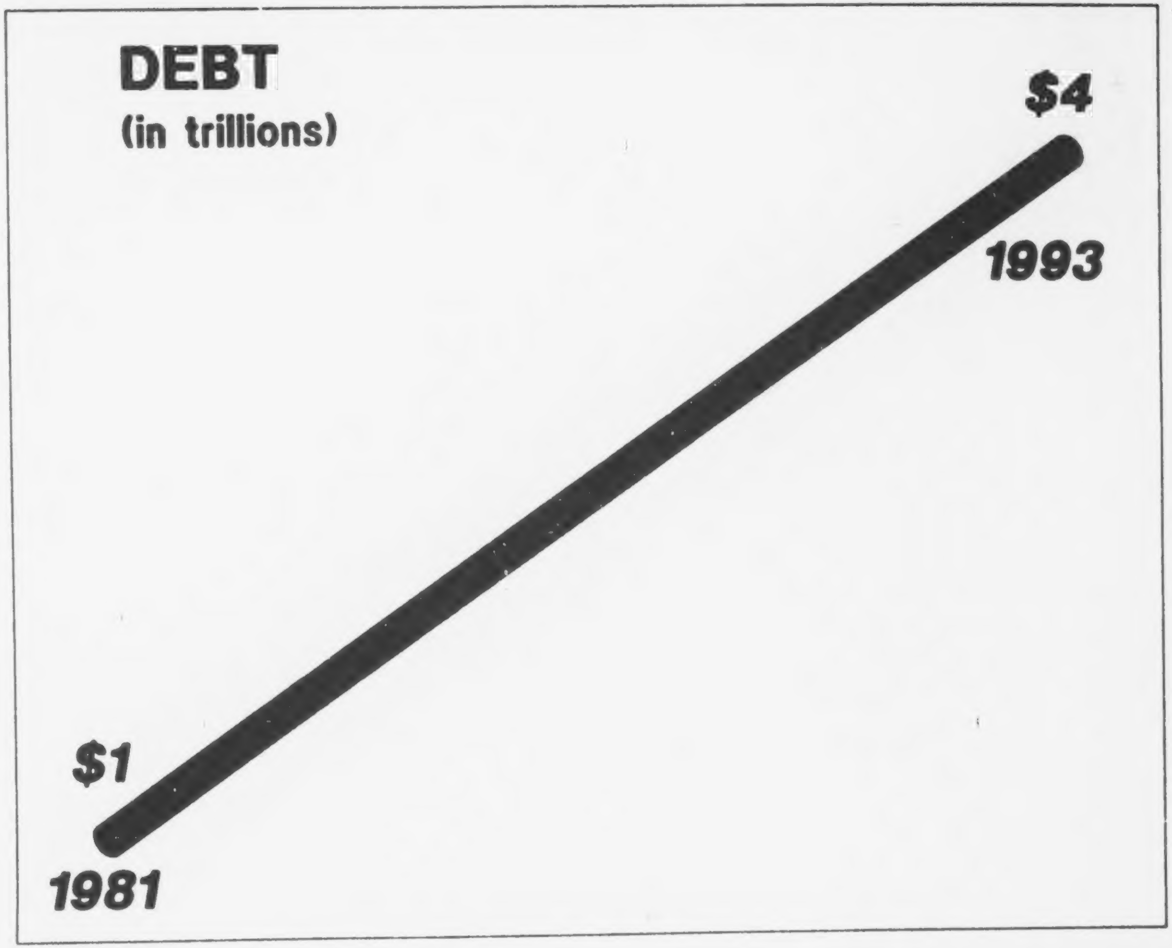
The Operating Account breaks down into receipts and outlays relevant to the that account. In Fiscal Year 1988 we received $791 billion in taxes, other receipts and offsetting collections. We spent $818 billion. This outlay figure includes: $241 billion for entitlements
$308 billion for defense
$269 billion for other government purposes
This leaves us with a $27 billion operating deficit in 1988. If S.101 were enacted it would require the elimination of that $27 billion deficit.

Finally, we get to the Debt and Interest Account where we can more clearly see our problem. In 1988 we paid $215 billion in interest just to service the debt. And we increased the debt $255 billion which should have been our deficit, not $155 billion as we claimed.

The Operating Account is manageable. The interest we are paying to service the debt is out of control. If we continue to ignore this, we surely will not have much of a future at all.

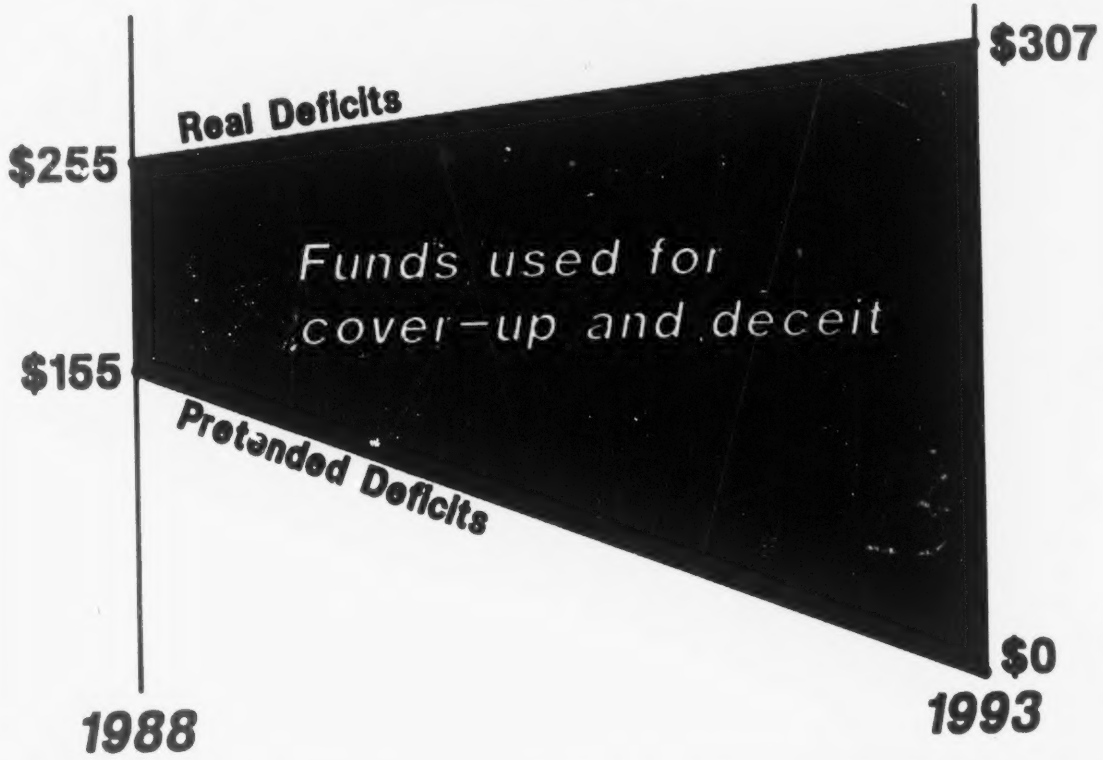
Again, this is a plan for debt reduction. The only way this plan can work is with strong leadership from the White House and the commitment from Congress to eliminate our real deficits and reduce the debt to a more acceptable level.

The way to begin is for all to agree that we will start with an honest budget.


DEBT
(in trillions)
$4
1993
$1
1981

DEFICITS

Annual, in billions



S. 101 REQUIRES STRUCTURE TO DISPLAY AN HONEST BUDGET

RETIREMENT TO SEPERATE AND PROTECT SOCIAL SECURITY AND OTHER RETIREMENT FUNDS	**OPERATIONS** TO SHOW CLEARLY WHICH ITEMS ARE SUBJECT TO BUDGET CUTS OR INCREASES	**DEFICIT AND DEBT** TO REVEAL AND PROVIDE FOR REDUCTION OF THE REAL DEFICIT AND DEBT
CONTRIBUTIONS TO RETIREMENT ACCOUNTS SOCIAL SECURITY TAXES OTHER RECEIPTS	PERSONAL INCOME TAXES CORPORATE INCOME TAXES EXCISE TAXES OTHER REVENUES	PUBLIC DEBT SUBJECT TO LIMIT BEGINNING FY
OUTLAYS TO BENEFICIARIES	ENTITLEMENTS	GROSS INTEREST
BALANCE TO TRUST FUNDS	DEFENSE	BALANCE "B" (plus or minus)
TRUST FUNDS FOR FUTURE	ALL OTHER GOVERNMENT	PUBLIC DEBT SUBJECT TO LIMIT ENDING FY
	BALANCE "B" (pluse or minus)	DEFICIT (Increase in debt)
Not to be used in any manner to conceal other budget figures	Requires that this Part be balanced; (Subject to point of order.)	1. Provide schedule for reduction 2. Allows for DEDICATED DEBT REDUCTION TAXES if proposed by President
Budget can be UNIFIED and CONSOLIDATED as appropriate.		

II

101st CONGRESS
1st Session

S. 101

To mandate a balanced budget, to provide for the reduction of the national debt, to protect retirement funds, to require honest budgetary accounting, and for other purposes.

IN THE SENATE OF THE UNITED STATES

January 25 (legislative day, January 3), 1989

Mr. Sanford introduced the following bill; which was read twice and referred jointly pursuant to the order of August 4, 1977, to the Committees on the Budget and Governmental Affairs with instructions that if one committee reports, the other committee has thirty days of continuous session to report or be discharged

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A BILL

To mandate a balanced budget, to provide for the reduction of the national debt, to protect retirement funds, to require honest budgetary accounting, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Balanced Budget and Debt Reduction Act of 1989".

TITLE I—OPERATING BUDGET, RETIREMENT FUNDS BUDGET, AND DEBT AND INTEREST BUDGET

SEC. 101. OPERATING BUDGET, RETIREMENT FUNDS BUDGET, AND DEBT AND INTEREST BUDGET IN THE PRESIDENT'S BUDGET.

(a) UNIFIED BUDGET.—Chapter 11 of title 31, United States Code, is amended by inserting after section 1105 the following new section:

"§ 1105a. Operating budget, retirement funds budget, and debt and interest budget

"(a) The budget of the United States Government submitted by the President under section 1105 of this title shall be a unified budget composed of—

"(1) an operating budget;

"(2) a retirement funds budget; and

"(3) a debt and interest budget.

The President's budget submission shall present these three budgets separately.

"(b) For the purposes of this section—

"(1) the unified budget shall include all receipts and expenditures for Federal funds and trust funds consolidated to display totals for the Federal Government as a whole;

"(2) the operating budget shall include all receipts and expenditures of all Federal entities, other than those in the retirement funds budget and the debt and interest budget;

"(3) the retirement funds budget shall include receipts and expenditures for—

"(A) the Federal Old-Age and Survivors Insurance Trust Fund;

"(B) the Federal Hospital Insurance Trust Fund;

"(C) the Civil Service Retirement and Disability Fund;

"(D) the Military Retirement Fund;

"(E) the Federal Supplementary Medical Insurance Trust Fund;

"(F) the Federal Disability Insurance Trust Fund;

"(G) the Railroad Retirement Fund; and

"(H) such other funds or accounts that the Director of Management and Budget (in cooperation with the Comptroller General, the Director of the Congressional Budget Office, and the Chairmen and the Ranking Minority Members of the Committees on the Budget of the Senate and the House of Representatives) determines should be classified as retirement trust funds in order to fulfill the purposes of this section; and

"(4) the debt and interest budget shall include receipts and expenditures for—

"(A) reductions or increases in the public debt;

"(B) interest on the public debt; and

"(C) in times of declared war or declared recession pursuant to section 254 of the Balanced Budget and Emergency Deficit Control Act of 1985, inter-fund transfers to the operating budget.".

(b) AMENDMENT TO THE CHAPTER ANALYSIS.—The chapter analysis for chapter 11 of title 31, United States Code, is amended by adding after the item for section 1105 the following:

"1105a. Operating budget, retirement funds budget, and debt and interest budget.".

SEC. 102. REPORTING OF TRANSFERS AMONG BUDGETS.

Section 1105(a) of title 31, United States Code, is amended by inserting at the end thereof:

"(26) inter-fund transfers between the operating budget and the debt and interest budget.".

SEC. 103. OPERATING BUDGET, RETIREMENT FUNDS BUDGET, AND DEBT AND INTEREST BUDGET IN THE CONGRESSIONAL BUDGET.

Section 301(a) of the Congressional Budget Act of 1974 is amended by inserting after "ensuing fiscal years," the following: "for the operating budget, the retirement funds budget, and the debt and interest budget (as defined in 31 U.S.C. section 1105a), respectively,".

SEC. 104. CONFORMING CHANGE.

Section 710(a) of the Social Security Act is amended by inserting "operating" after "the totals of the".

TITLE II—BALANCED OPERATING BUDGETS

SEC. 201. POINT OF ORDER AGAINST UNBALANCED OPERATING BUDGETS.

Section 301(i) of the Congressional Budget Act of 1974 is amended by striking paragraph (2) and inserting in lieu thereof:

"(2)(A) Except as provided in paragraph (3), it shall not be in order in either the House of Representatives or the Senate to consider any concurrent resolution on the budget for a fiscal year under this section, or to consider any amendment to such a concurrent resolution, or to consider a conference report on such a concurrent resolution, if the level of operating budget outlays for such fiscal year that is set forth in such concurrent resolution or conference report exceeds the recommended level of operating revenues set forth for that year, or if the adoption of such amendment would result in a level of operating budget outlays for that fiscal year that exceeds the recommended level of operating revenues for that fiscal year.

"(B) In the House of Representatives the point of order established under subparagraph (A) with respect to the consideration of a conference report or with respect to the consideration of a motion to concur, with or without an amendment or amendments, in a Senate amendment, the stage of disagreement having been reached, may be waived only by a vote of three-fifths of the Members present and voting, a quorum being present.

"(3) This subsection shall not apply if a declaration of war by the Congress is in effect.

"(j) BUDGET LEVELS DETERMINED BY THE BUDGET COMMITTEE.—For the purposes of this section, the levels of new budget authority, spending authority as described in section 401(c)(2), outlays, and new credit authority for a fiscal year shall be determined on the basis of estimates made by the Committee on the Budget of the House of Representatives or the Senate, as the case may be.".

SEC. 202. POINT OF ORDER AGAINST LEGISLATION THAT WOULD CAUSE AN OPERATING DEFICIT.

Section 311(a) of the Congressional Budget Act of 1974 is amended—

(1) in the matter after paragraph (3) by inserting before "or, in the Senate" the following: "or would cause operating budget outlays to exceed operating budget revenues"; and

(2) in the matter following subparagraph (B) by striking "paragraph (2) of such section" and inserting "paragraph (3) of such section".

SEC. 203. PROHIBITION OF COUNTING AS SAVINGS THE TRANSFER OF GOVERNMENT ACTIONS FROM ONE YEAR TO ANOTHER.

(a) ELIMINATING EXCEPTIONS.—Section 202 of the Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987 is amended by—

(1) striking "(a) IN GENERAL.—Except as otherwise provided in this section, any" and inserting "Any";

(2) striking "altering" and inserting "reducing"; and

(3) striking subsection (b).

(b) CONFORMING AMENDMENT.—Section 251(a)(6)(K) of the Balanced Budget and Emergency Deficit Control Act of 1985 is amended by striking "except to the extent provided in such section".

SEC. 204. PRESIDENT'S OPERATING BUDGET MUST BE BALANCED.

Section 1105(f) of title 31, United States Code, is amended—

(1) in paragraph (1), by inserting before the period "using a budget baseline estimate made in accordance with section 251(a)(6) of the Balanced Budget and Emergency Deficit Control Act of 1985";

(2) in paragraph (2), by inserting before the comma "using a budget baseline estimate made in accordance with section 251(a)(6) of the Balanced Budget and Emergency Deficit Control Act of 1985";

(3) by striking paragraph (3) and inserting in lieu thereof the following:

"(3) In the operating budget in the budget so transmitted for any fiscal year, revenues shall equal outlays, with revenues and outlays at such levels as the President may consider most desirable and feasible. To the extent that gross revenues exceed gross outlays, the President shall indicate such surplus as an inter-fund transfer to the debt and interest budget."; and

(4) by striking paragraph (4) and redesignating paragraph (5) as paragraph (4).

SEC. 205. EFFECTIVE DATE.

This title shall take effect on the date of enactment of this title with respect to fiscal year 1991 and all subsequent fiscal years.

TITLE III—TRUST FUND FOR THE REDUCTION OF THE PUBLIC DEBT

SEC. 301. PUBLIC DEBT REDUCTION POLICY.

It is the policy of the United States that—

(1) not later than September 30, 1989, the Congress shall amend the Internal Revenue Code to establish a special debt retirement tax or taxes dedicated to the reduction of the public debt, or earmark an existing tax or taxes for that purpose;

(2) the revenues collected from the debt retirement tax shall be especially titled so that citizens may be aware of their purpose;

(3) the revenues collected under the debt retirement tax shall be deposited to a separate trust fund account;

(4) the trust fund shall be used only for the retirement of the public debt;

(5) the Secretary of the Treasury shall administer the account with the advice of a bipartisan board consisting of the Secretary of the Treasury, as chairman, the Chairman and Ranking Minority Members of the Committee on Finance, the Committee on Ways and

Means, and the Committees on the Budget of the Senate and the House of Representatives, and the Chairman of the Federal Reserve Board;

(6) any debt retirement tax enacted shall expire upon the reduction of the public debt to a target level of not more than 20 percent of the average Gross National Product over the previous 3 years; and

(7) in determining what type of tax is appropriate, the Congress shall take into account ability to pay.

TITLE IV—MANDATED REDUCTION OF THE PUBLIC DEBT

SEC. 401. DEFINITION OF "DEFICIT".

Section 3 of the Congressional Budget Act of 1974 is amended by striking paragraph (6) and inserting in lieu thereof:

"(6) The term 'deficit' means, with respect to any fiscal year, the amount by which combined budget outlays for the operating and debt and interest budgets for such fiscal year exceed combined revenues for the operating and debt and interest budgets for such fiscal year. Amounts paid by the Federal Financing Bank for the purchase of loans made or guaranteed by any department, agency, or instrumentality of the Government of the United States shall be treated as outlays of such department, agency, or instrumentality.".

SEC. 402. REDUCTION OF DEFICITS.

Section 3 of the Congressional Budget Act of 1974 is amended by striking paragraph (7) and inserting in lieu thereof:

"(7) The term 'maximum deficit amount' means—

"(A) with respect to fiscal year 1989, $256,000,000,000;

"(B) with respect to fiscal year 1990, $224,000,000,000;

"(C) with respect to fiscal year 1991, $193,000,000,000;

"(D) with respect to fiscal year 1992, $162,000,000,000;

"(E) with respect to fiscal year 1993, $131,000,000,000;

"(F) with respect to fiscal year 1994, $100,000,000,000;

"(G) with respect to fiscal year 1995, $69,000,000,000;

"(H) with respect to fiscal year 1996, $38,000,000,000;

"(I) with respect to fiscal year 1997, $7,000,000,000;

"(J) with respect to fiscal year 1998, $24,000,000,000 (surplus);

"(K) with respect to fiscal year 1999, $55,000,000,000 (surplus);

"(L) with respect to fiscal year 2000, $86,000,000,000 (surplus);

"(M) with respect to fiscal year 2001, $117,000,000,000 (surplus);

"(N) with respect to fiscal year 2002, $148,000,000,000 (surplus); and

"(O) with respect to fiscal year 2003 and all subsequent fiscal years until the public debt has been reduced to less than 20 percent of the Gross National Product, $150,000,000,000 (surplus).".

SEC. 403. REVENUE REQUIREMENTS.

Section 252(a)(7) of the Balanced Budget and Emergency Deficit Control Act of 1985 is amended by inserting at the end thereof the following new paragraph:

"(8) REVENUE REQUIREMENTS.—(A) No later than 7 days after the issuance of a report pursuant to section 251(a)(2)(B) indicating that the deficit excess for a fiscal year exceeds $10,000,000,000, the Committees on the Budget of the House of Representatives and the Senate shall report to their respective Houses a concurrent resolution directing the Committee of Ways and Means of the House of Representatives and the Committee on Finance of the Senate to report within 60 days changes in law within their jurisdictions sufficient to increase revenues by an amount equal to one-half of the deficit excess reported in such report.

"(B) The provisions relating to the consideration of a joint resolution under section 254(a)(4) shall apply to the consideration of a concurrent resolution reported pursuant to this subsection in the House of Representatives or the Senate.

"(C) The provisions relating to the consideration of reconciliation legislation under sections 310 of the Congressional Budget Act of 1974 shall apply to the consideration of legislation reported pursuant to a concurrent resolution under this section.".

SEC. 404. CONFORMING CHANGES.

(a) Section 257(10) of the Balanced Budget and Emergency Deficit Control Act of 1985 is amended by striking "of fiscal years 1988 through 1992 and zero with respect to fiscal year 1993" and inserting in lieu thereof "fiscal year".

(b) Section 275(b) of the Balanced Budget and Emergency Deficit Control Act of 1985 is amended—

(1) in paragraph (1), by striking "1993" and inserting in lieu thereof "2004"; and

(2) in paragraph (2), by striking "and the second sentence of section 3(6) of such Act (as added by section 201(a)(1) of this joint resolution)".

TITLE V—INVESTMENT OF EXCESS SOCIAL SECURITY TRUST FUNDS IN LOAN PROGRAMS

SEC. 501. INVESTMENT OF EXCESS SOCIAL SECURITY TRUST FUNDS IN LOAN PROGRAMS.

The General Accounting Office shall study and report to the Committee on Finance, the Committee on Ways and Means, and the Committees on the Budget of the Senate and the House of Representatives on the efficacy of amending title II of the Social Security Act to preserve and protect the excess funds in the Trust Funds under that title by providing that they be invested in sound, interest-bearing loans to help rebuild the national facilities and to improve the national resources, specifically, in United States interest-bearing loan programs for education, economic development, housing, and such public works as water and sewer, highway and bridge construction.

TITLE VI—ALTERNATE-YEAR RECONCILIATION

SEC. 601. TIMETABLE.

Section 300 of the Congressional Budget Act of 1974 is amended to read as follows:

"SEC. 300. The timetable for the Congressional budget process is as follows:

"On or before:	Action to be completed:
First Monday after January 3	President submits budget.
February 15	Congressional Budget Office submits report to Budget Committees.

February 25	Committees submit views and estimates to Budget Committees.
March 15	Initial OMB/CBO snapshot.
March 20	CBO issues its initial report to OMB and Congress.
March 25	OMB issues its initial report to the President and Congress.
March 25	President issues initial order.
April 9	President transmits to Congress a detailed message regarding the initial order.
April 15	Congress completes action on concurrent resolution on the budget.
May 15	Appropriations bills may be considered in the House.
June 10	House Appropriations Committee reports last appropriations bill.
September 30	Congress completes action on reconciliation legislation in odd-numbered years.
September 30	Congress completes action on appropriations legislation.
October 1	Fiscal year begins and any initial order becomes effective.
October 10	CBO issues its revised report to OMB and Congress.
October 15	OMB issues its revised report to the President and Congress.
October 15	President issues final order (which becomes effective immediately).
October 30	President transmits to Congress a detailed message regarding the initial order.
November 15	Comptroller General issues compliance report.".

SEC. 602. ALTERNATE-YEAR RECONCILIATION.

Section 310(a) of the Congressional Budget Act of 1974 is amended by—

(1) inserting after "any" the following: "even-numbered"; and

(2) inserting after "fiscal year" the first time it appears the following: "(or any odd-numbered fiscal year in which the Director of the Office of Management determines in his initial report pursuant to section 251(a)(2)(B) of the Balanced Budget and Emer-

gency Deficit Control Act of 1985 that a deficit excess exists)".

SEC. 603. EARLY INITIAL OMB REPORT.

The Balanced Budget and Emergency Deficit Control Act of 1985 is amended—

(1) in section 251(a)(1)(A), by striking "August 15" and inserting in lieu thereof "March 15";

(2) in section 251(a)(2)(A), by striking "August 20" and inserting in lieu thereof "March 20";

(3) in section 251(a)(2)(B), by striking "August 25" and inserting in lieu thereof "March 25";

(4) in section 251(a)(2)(C), by striking clauses (iii) and (iv);

(5) in section 251(a)(3)(A)(ii)(II), by striking "August 15" and inserting in lieu thereof "March 15";

(6) in section 251(c)(1)(A), by striking "August 15" and inserting in lieu thereof "March 15";

(7) in section 252(a)(1), by striking "August 25" and inserting in lieu thereof "March 25"; and

(8) in section 252(b)(2), by striking "August 15" and inserting in lieu thereof "March 15".

○

"THE HONEST BUDGET ACT"

THE BALANCED BUDGET AND DEBT REDUCTION ACT OF 1989, S.101

REQUIRES HONEST BUDGETING

Unlike GRH, S.101 has been crafted to require full disclosure of deficit defined as debt increase. S.101 alone will not guarantee success, but it will lay the right foundation, prompting badly needed action to eliminate our annual deficits, and facilitating substantial reductions in the "bottom line" of the Federal debt.

DEFINES DEFICIT AS ANNUAL INCREASE IN THE FEDERAL DEBT

S.101 defines deficit to mean the amount by which the debt is increased, which is government's bottom line. The Fiscal Year 1990 Budget Resolution claims a deficit of about $100 billion which acknowledging a $264 billion increase in the federal debt. S.101 designates this increase in debt as the deficit.

DIVIDES THE UNIFIED FEDERAL BUDGET INTO THREE CATEGORIES

1. Retirement Funds Budget
2. Operating Budget (Entitlements, Defense, Other Government)
3. Debt and Interest Budget

RETIREMENT FUNDS BUDGET

This budget includes receipts and expenditures for Social Security and other Federal retirement programs, including transfers of employer (U.S.) contributions from the Operating Budget to the Retirement Funds, and including interest received from the U.S. Treasury for securities held in trust. Retirement Funds surpluses would be contained in this category and not used to mask the true size of the annual deficits. Also, interest paid by Treasury to these trust funds, must be counted, for deficit purposes, as an outgo just like interest paid on bonds held by a private bank or trust fund.

OPERATING BUDGET

The Operating Budget includes all receipts and expenditures of Federal entities other than those in the two other component budgets, reflecting current receipts and current demands on the Government. S.101 requires that the Operating Budget must be balanced, or subject to a point of order, and sequestration.

DEBT AND INTEREST BUDGET

This budget includes changes in the public debt and interest on the public debt. Interest displayed here includes payments to the retirement trust funds, and cannot be treated as income to mask the total amount of (gross) interest paid.

It establishes a trust fund for the reduction of the public debt subject to the limit, and provides for enactment of taxes, if called for by the President, solely dedicated to the reduction of the public debt. It mandates the reduction of the public debt by establishing annual maximum deficit targets.

THE ECONOMY

AMERICA'S PLACE IN WORLD COMPETITION

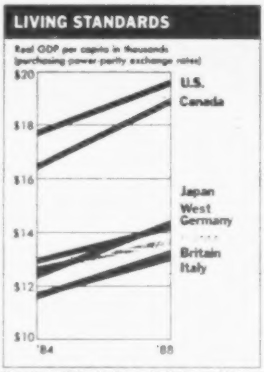
Its living standards are the highest anywhere and exports are robust again. But productivity is growing faster in other nations, and basic education is a disaster.

■ *by Brian O'Reilly*

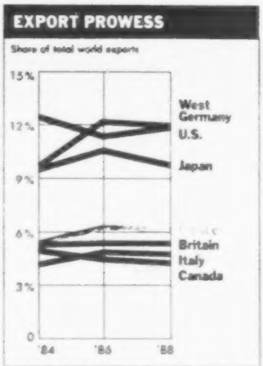
IS THAT BUZZING in your ears cognitive dissonance? You know that America is entering an unprecedented eighth year of peacetime expansion, and you keep reading about—or are in the midst of—corporate upheavals designed to make U.S. business even more competitive. Yet gravely concerned economists keep telling you that America's productivity is flagging, its exports are lagging, and its standard of living is dropping behind that of other industrial powers. What's going on?

The charts on these pages cut through the hyperbole, an essential step in figuring out what is really right and wrong with the U.S. economy—and what must be done to improve it. By many key measures of performance, the U.S. is the world leader. But several underlying trends *are* disturbing.

Two measures sum up the good news about where America stands today: living standards and export strength. The best barometer of living standards is total output per person. Unlike consumption, which can be boosted temporarily by borrowing, output reflects a country's ability to sustain its consumption year after year. Americans are better off than anyone else. Other na-

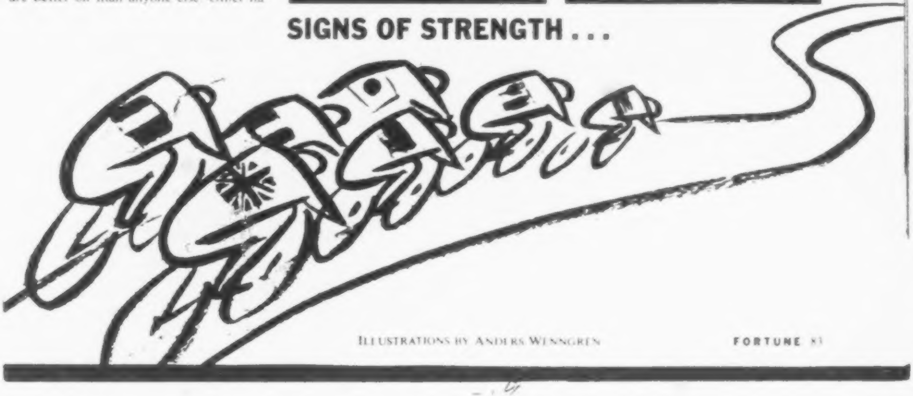


America still leads the rest of the world in gross domestic product per capita. The chart reflects dollars of comparable purchasing power in various countries.



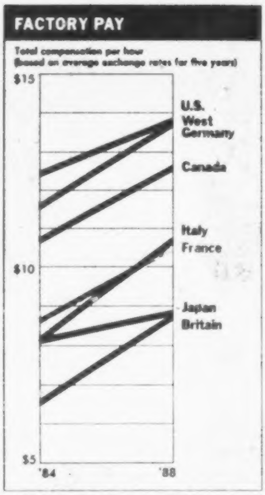
Vying with West Germany for the export championship, the U.S. has recaptured lost ground. Its manufacturers have bounced back from the decade's earlier shocks.

SIGNS OF STRENGTH . . .

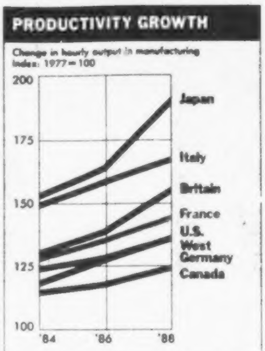


ILLUSTRATIONS BY ANDERS WENNGREN

. . . AND PORTENTS OF WEAKNESS

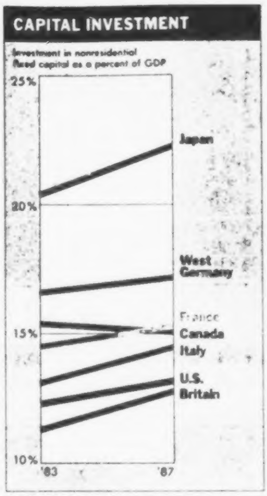


At $13.92 an hour, American factory workers are still the world's best paid, but just barely. Wages are growing faster in all other major countries save for Japan.

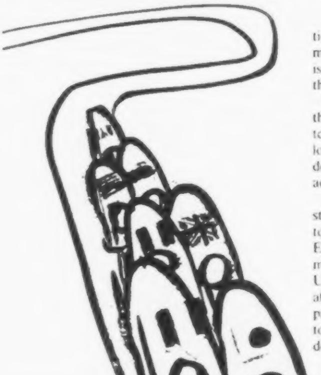


GDP PER EMPLOYED PERSON	1984	1988
U.S.	$39,249	$41,281
Canada	37,478	39,261
France	32,483	35,512
Italy	32,151	35,329
West Germany	31,456	33,605
Britain	27,332	29,771
Japan	26,181	29,678

America's output per employed person remains the world's highest. But staying ahead gets harder as productivity keeps growing faster in other countries.



Trailing the world capital spending surge, the U.S. invests less of its output on modernizing factories and offices than do most other major industrial nations.



tions are laboring hard to catch up, and more power to them. But America's growth is lethargic these days—and that is something to worry about.

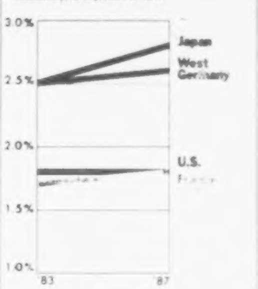
Measured by its share of world exports, the U.S. is one of the world's top competitors. It has regained much of the ground it lost in the mid-1980s. The nation's foreign debt is still growing, however, and its current account deficit is improving only slowly.

Productivity is the key to rising living standards. Taken together, American factories are the most productive in the world. Even the Japanese lag behind. Though manufacturing productivity growth in the U.S. has slowed somewhat in recent years after rebounding smartly from the laggard pace of the Seventies, it's still strong in historical terms. "The U.S. hasn't fallen down," says Gerald Godshaw of the WEFA Group economic consulting firm. "In the Eighties we are probably at the average of productivity growth for the last century."

But America can't ignore the pace other countries are setting with their investments in new factories, machinery, and R&D. In 1987, Japan plowed a stunning 22.3% of gross domestic product back into modernizing machinery, offices, and plants—far more than any other major industrial power. That was up almost two percentage points from 1983 and according to the Bureau of Labor Statistics came to about $6,000 per worker, vs. just $5,000 in the U.S. America's long-term trend may no longer be good enough.

Even excluding what the U.S. invests in military research, American R&D spending—$67.5 billion in 1987—dwarfs that of any other country. The trouble is that West Germany and Japan are spending a much

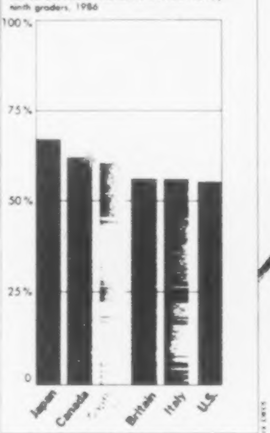
R&D SPENDING



1987 NONMILITARY R&D in billions of U.S. dollars	
U.S.	$67.5
Japan	$38.8
West Germany	$18.4
France	$10.9

While America spends the most on R&D in absolute dollars, developing new products and processes is a higher priority in West Germany and Japan.

BASIC EDUCATION



Standardized science tests given to ninth-graders in 17 countries show the U.S. lagging. Tied with Thailand and Singapore, it leads only Hong Kong and the Philippines.

higher proportion of GNP to develop new technologies and processes.

America's rivals may also be allocating their money more wisely. Nearly 70% of the nation's industrial R&D goes into inventing new products, and far less into refining mass-production techniques. By contrast, Japan devotes about two-thirds of its R&D to tinkering with manufacturing processes—figuring out how to make a zillion widgets cheaper or better. "The U.S. has been very good at coming out with splashy new products," says Edwin Mansfield, a University of Pennsylvania economist. "The Japanese are good at making incremental changes and reducing costs." That superiority helped Japan win the memory chip business, among others.

The dollar's decline since early 1985 has helped make America's manufacturing wages relatively more competitive. Compensation costs were 30% higher in West Germany than in the U.S. last year, and just 9% lower in Japan. Even if you reduce the effect of currency fluctuations by translating wages at the average exchange rate for the past five years, factory workers cost virtually the same in Germany as in America. The Italian and French are rapidly closing the gap—though the Japanese remain a bargain. The pay gains of workers abroad laudably boosted living standards there. By contrast, U.S. employees had only meager earnings growth over the past few years.

Perhaps most worrisome for the future is the poor education of students who will go to work in America's factories and offices. The U.S. devotes 6.8% of GDP to education, a larger share than any other major country. But standardized science and math tests given internationally to schoolchildren in recent years show the U.S. ranking among the worst of all countries tested. These results say more about a worker's ability to interpret a technical manual than mere literacy statistics. Impossible in a nation of so many Nobel Prize winners? "We serve our best students pretty well," says Alan Purves, head of IEA, the education group that ran one of the studies. "We really don't do well with a moderately large portion of the population."

America is clearly doing many things right, but not enough. It needs to save more—by cutting the federal deficit, among other things—so it can invest more. And it needs to make better use of what it does invest, whether in new machinery or in education. ■

REPORTER ASSOCIATE Laura Kretchmar

Budget Deficit Hurts, Business Execs Say

By STEVE JOHNSTON
Staff Writer

Federal budget deficits raise borrowing costs and hurt Carolinas firms' ability to compete in the world, six area businesses executives told Sen. Terry Sanford, D-N.C., on Monday.

Before an audience of about 25 people, Sanford told his witnesses their opinions would help shape Budget Committee legislation. Businesses are concerned about the deficit because financing it crowds out other lending, pushing up U.S. interest rates. What's more, foreign money has flowed to the United States to pay for deficit spending, indirectly causing the trade deficit.

Sanford has proposed a bill to force clearer deficit accounting, which he says would make the current deficit not more than $110 billion but more like $270 billion. If business executives kept books the way Congress accounts for the budget deficit, "we'd send you to jail," he said. Congress understates the deficit's size, he said, by reducing the amount by the surpluses in Social Security, highway and airport trust funds, among other ways.

When Sanford asked if the executives would support a tax dedicated to deficit reduction, C. Ronald Riley, chief financial officer at Royal Insurance, said, "If the true deficit is held constant, then a tax to repay the principal I would support."

But Bill Hackney, First Union Corp.'s chief investment officer, said tax rates shouldn't increase. "We've got to nibble away at spending and do things in our tax system to (encourage) growth," he said.

Other comments:

- A.F. "Pete" Sloan, chairman of Lance Inc., complained about businesses' "hidden loss" from having to keep track of new federal legislation.
- Crandall Bowles, president of Lancaster, S.C.-based Springs Co., said deficit-induced economic uncertainties encourage short-term budgeting at the expense of long-term planning.
- Riley said about the deficit, "The present situation is simply intolerable," but said there was no public outcry because deficit numbers "are so large as to be not relatable to the average citizen."
- Omar Leatherman, chairman of the Charlotte Business League, a minority business trade association, suggested tax credits for firms creating equity funds for minority and disadvantaged businesses.
- Richard Osborne, vice president of finance for Duke Power Co., said, "Ending the federal budget deficit requires a combination of increased revenues and reduced expenditures." Osborne said the tax code contributes to the economic woes by encouraging consumption, not investment.

CAPITAL GAINS TAXATION AND THE COST OF CAPITAL FOR MATURE AND EMERGING CORPORATIONS

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Prepared for the American Council for Capital Formation
Conference on Saving--The Challenge for the U.S. Economy

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SUMMARY

Capital Gains Taxation and the Cost of Capital for Mature and Emerging Corporations

Yolanda K. Henderson

The role of capital gains taxes in impeding capital formation is a perennial topic in policy circles. The discussions have taken on more significance since the Tax Reform Act of 1986, which eliminated the 60-percent exclusion for long-term capital gains. The revised capital gains treatment was undertaken largely to satisfy concerns about the effect of the tax revision on the distribution of income, but it will tend to reduce overall national income somewhat in the long run because of its adverse effects on corporate investment.

This paper examines the magnitude of the capital gains tax increase for the corporate sector. As requested by the organizers of this conference, the paper goes beyond the usual aggregated statistics in examining the effect on the cost of capital for corporations at different stages of development.

Increases in capital gains taxes contributed about half the overall rise in the corporate cost of capital from the Tax Reform Act of 1986. The elimination of the capital gains preference raised these costs about eight percent for the average corporation, even considering offsetting effects of lower marginal tax brackets and accounting for lags between accrual and realization of capital gains and their forgiveness at death. That is, to earn a return of .04 net of all taxes, the typical corporation's threshhold pretax return has risen from .065 to .070 as a result of higher capital gains taxes, assuming it uses a financing mix of one-third debt and two-thirds equity. Corporations' desired capital stock might be reduced by between five and eight percent because of the higher capital gains taxes. Unlike some other elements of the reform package, the capital gains tax increase has deterred capital formation without improving the allocation of capital resources.

Any increase in the cost of equity funds is likely to impose a disproportionate burden on emerging corporations, discouraging their growth. The typical young corporation finances a lower proportion of its assets by issuing debt, and has a lower debt-to-equity ratio, than does the typical mature corporation. This comparison is especially sharp in the services sector. Technology-oriented companies also have particularly low access to debt. Although economists disagree on exactly how capital gains taxes and dividend taxes affect the cost of equity, and therefore on whether equity is more expensive for emerging than for mature corporations, they generally recognize capital gains taxes as a significant element of this cost. Furthermore, recent research indicates that a lack of internally generated funds serves as a constraint on investment beyond what an analysis based solely on tax policy would indidate. Young corporations' need to issue new shares hampers their capital expansion plans.

The cost of funds--both equity and debt--depends on whether investors and creditors are subject to taxation on their income. Mature corporations have relatively greater access to untaxed institutional investors such as pension funds, and therefore can afford to undertake investments with pretax returns lower than those undertaken by emerging corporations. Investors in young corporations are more likely to be individuals subject to capital gains taxes.

Finally, these financial distinctions between emerging and mature corporations are more important than distinctions based on production activity. Differences in the reliance on equipment as opposed to structures are not particularly striking between high-technology businesses and others, and any existing differences were mitigated by the Tax Reform Act of 1986.

Tax reformers interested in lowering the cost of investment in corporations relative to the cost of tax-preferred investments such as owner-occupied housing and consumer durables should attempt to eliminate the "double tax" on corporate equities. This would also serve to equalize capital costs between mature and emerging corporations. Lowering the effective tax rate on capital gains from corporate stock could form part of this response.

A reduced effective tax rate on capital gains still leaves in place significant distinctions between the tax treatment of debt and equity. These differences stem from the existence of a separate tax on corporate income in addition to taxes on shareholders. Researchers and policymakers interested in eliminating penalties on investing in corporate equities may therefore wish to revisit the possibilities for tax integration.

Achieving an appropriate balance between goals for income distribution and for capital formation is always problematic. Considerations of fairness deserve a prominent role in policy discusssions, in addition to the evidence regarding capital costs that forms the focus of this study.

CAPITAL GAINS TAXATION AND THE COST OF CAPITAL FOR MATURE AND EMERGING CORPORATIONS

Yolanda K. Henderson

The role of capital gains taxes in impeding capital formation is a perennial topic in policy circles. The discussions have taken on more significance since the Tax Reform Act of 1986 which eliminated the 60-percent exclusion for long-term capital gains. The revised capital gains treatment was undertaken largely to satisfy concerns about the effect of the tax revision on the distribution of income, but it will tend to reduce overall national income somewhat in the long run because of its adverse effects on corporate investment.

This paper examines the magnitude of the capital gains tax increase for the corporate sector. As requested by the organizers of this conference, the paper goes beyond the usual aggregated statistics in examining the effect on the cost of capital for corporations at different stages of development. Two central conclusions emerge from the analysis. First, the higher capital gains tax rates accounted for half the overall increase in the cost of corporate capital under the 1986 tax reform. Second, emerging corporations bear an especially pronounced burden of taxation because they rely disproportionately on equity finance.

The paper starts with an overview of capital gains taxation and the cost of capital in section 1. Then section 2 distinguishes between the features of mature and emerging corporations. Because they have not yet reached the relatively low-growth rates associated with maturity, young corporations tend to retain their earnings and seek additional external funding for their investments. The remainder of the paper reviews the various ways in which the distinguishing characteristics of emerging corporations affect their relative cost of capital. Some of the specific results are necessarily tentative because they rely on controverisal theories and imperfect data, but together they indicate that the financial characteristics of emerging corporations and their investors combine to produce a relatively high cost of capital. Section 3 compares different corporations' access to debt, section 4 discusses the measurement of their equity costs, and section 5 examines the tax status of their investors and creditors. Additional imperfections in capital markets could also contribute to differences in capital costs, but the paper concentrates largely on disparities that can be adjusted through changes in tax policy. Section 6 indicates that differences in production processes are unlikely to serve as a significant additional factor raising the relative cost of capital for new corporations. Finally, section 7 offers a starting point for renewed policy discussions by briefly indicating relative benefits and difficulties of reforming capital gains taxes on the one hand and the corporate income tax on the other.

1. An Overview of Capital Gains Taxation

Capital gains taxes paid by shareholders are only one element of the cost of funds for corporations. This section provides a perspective on how capital gains taxes factored into the set of changes introduced in the Tax Reform Act of 1986. It considers how taxes distort incentives for capital allocation and capital formation through differential effects on assets, financial instruments, and sectors. Because newly emerging corporations may differ from mature corporations in their sources of funding, lines of business, and production processes, the separate effects of capital gains taxation are important for the analysis in later sections of the paper that deal more directly with companies at different stages of development.

As is well-known, the Tax Reform Act eliminated the 60-percent exclusion rate for assets held more than six months, so that realized long-term capital gains from holding corporate stock are now effectively taxed at the same rates as ordinary income. Simultaneously, the Act reduced marginal tax rates. With 100 percent of long-term capital gains includable in taxable income, households now face marginal tax rates on capital gains ranging from 15 percent to 33 percent. The rate for the highest income filers is 28 percent.

The net effect of eliminating the capital gains exclusion and lowering statutory tax brackets was to raise effective tax rates on capital gains. The top rate on ordinary income used to be 50 percent; the 60-percent exclusion produced an associated capital gains rate of 20 percent prior to the Tax Reform Act. The increase for other filers was more pronounced, because their marginal tax brackets were reduced to a lesser extent.

This increase in capital gains taxation was responsible for about half the overall increase in the corporate sector's cost of capital from the Tax Reform Act. The entries in table 1 indicate the pretax real rates of return that corporations must earn on investments in order to return an inflation-adjusted 4 percent net of all taxes they and their shareholders and creditors pay. These representative calculations use a Hall-Jorgenson approach to estimating costs of a prospective investment, taking into account statutory rates of tax, investment tax credits and depreciation allowances, and separate provisions for interest, dividends, and capital gains. They assume that investments are financed using one-third debt and two-thirds equity, that the debt and equity are held by the observed mix of taxable and non-taxable investors, and that the expected inflation rate is 4 percent. They aggregate costs of specific types of machinery and equipment, structures, land, and inventories according to their observed fractions of the corporate capital stock. (Alternative assumptions and approaches are discussed below.)[1] Using these assumptions combined with statutory changes, the Tax Reform Act raised the corporate cost of capital by almost 15 percent, from .065 to .075. From the changes in capital gains taxes alone, the cost of capital increased by about eight percent, to .070.

This increase in the cost of capital has tended to discourage capital formation and to misallocate resources away from businesses into lightly-taxed investments such as owner-occupied housing. Unlike some of the other changes introduced under the Tax Reform Act, the increased taxation of capital gains has no offsetting advantages in terms of allocative effects within the corporate sector. For example, before the reform corporations in different industries had differing effective capital costs because of their mix of assets. By rescinding the 10 percent investment tax credit and lowering the top statutory corporate income tax rate from 46 percent to 34 percent, the Act tended to equalize the tax treatment of corporations using large proportions of machinery and equipment and those using large proportions of structures and nondepreciable assets. This narrowing of capital costs across corporations may have outweighed the harmful effects of increasing the overall cost of capital. For example, Fullerton, Henderson, and Mackie (1987) found that national output would increase slightly in the long run from this combination of tax changes. By contrast, however, the higher taxation of capital gains affected all assets fairly equally, so this policy did not help to improve the allocation of capital across corporations. Considered alone, the increased capital gains taxes will have a negative effect on national output in the long run because they deter capital formation.

The simple Cobb-Douglas rule of thumb maintains that a one percent change in the cost of capital would lead to a commensurate change in the opposite direction in corporations' desired capital stock. Under this assumption, the 1986 capital gains tax increase would lead to close to an eight percent decrease in corporate capital. Simulation with the model used in the Fullerton, Henderson, and Mackie (1987) study indicates an eventual drop of about five and a half percent, because corporations are not as sensitive to capital costs as assumed in the Cobb-Douglas model. The simulations assume that households' loss of purchasing power from the capital gains tax increase would be restored by other tax cuts. Also, they assume that part of the rise in the cost of capital is offset as lower investment depresses interest rates. The model indicates that national income would eventually fall by about half a percentage point, which reflects both the contribution of corporate capital to GNP and some reallocation of resources to unincorporated sectors.

The increase in the capital gains rate also exacerbated the tax differential between corporate equity and debt, in opposition to the improved financial incentives caused by the reduction in the corporate income tax rate. Table 2 indicates some representative calculations of tax rates on interest and capital gains, assuming once again that the underlying assets are held by the observed mix of taxable and nontaxable investors, and using standard assumptions about holding periods for corporate stock. (Alternative assumptions are discussed below.) The computations in table 2 abstract from changes in depreciation allowances and the investment tax credit introduced in the Tax Reform Act.

Interest payments are deductible by corporations, but interest payments are taxable to households and other entities holding corporate debt. Some interest payments are also received by untaxed institutions. On average, the tax on a dollar of interest fell from about 15 cents to about 12 cents because of reductions in marginal tax brackets. By contrast, corporate equity is "double taxed," with the provisions depending on whether the income is paid out as a dividend or retained in the corporation. As discussed further below, the measurement of disincentive effects caused by taxation of equity income is controversial, but at least one theory emphasizes the role of capital gains taxation over dividend taxation. The tax on equity at the corporate level was reduced from 46 percent to 34 percent. But the effective tax on shareholders rose. Considering both the change in marginal tax rates and the elimination of the capital gains exclusion, the weighted rate for individuals rose from 16 percent to 28 percent. In contrast to most taxes that are paid on income as it accrues, capital gains taxes are postponed until assets are sold. Also, appreciation on assets held until the individual's death escapes the capital gains tax. Various analysts have assumed that these features combine to reduce the effective capital gains tax rate on average to one-quarter of its statutory level (see King and Fullerton 1984 chapter 6 and references therein; shorter holding periods would cause the effective rate to be closer to the statutory rate). Combining the reduced corporate rate, the increased capital gains rate for individuals, and taxation of institutional holders yields a total effective tax rate on corporate capital gains that drops from 48 percent in 1986 to 37 percent in 1988. Thus, while the differential tax between debt and equity fell, it remains very significant at 25 percentage points and was accentuated by the increase in the capital gains tax.

The tax differential between debt and equity looks even larger once inflation is considered. Capital gains are not indexed to inflation, so the effective tax is a larger fraction of real gains. The lack of indexation of interest means that the taxable income of corporations is understated in times of inflation, but this is exactly matched by an overstatement of taxable income for their creditors. Corporations are in a higher statutory tax bracket than their creditors on average and therefore the effective tax cut is greater than the effective tax increase once a correction is made for the impact of inflation on interest.

This analysis of the various real and financial decisions distorted by capital gains taxation sets the stage for an examination of different types of corporations. As the remainder of the paper indicates, capital gains taxes are particularly onerous for emerging corporations because of their reliance on equity finance.

2. Characteristics of Emerging and Mature Corporations

There is no universally accepted definition of an "emerging" as opposed to a "mature" corporation, nor do data sources typically provide information separately on these two categories of firms. This section provides the conceptual distinctions used in this paper, and then discusses how this definition relates to available statistics.

Mature corporations tend to be larger than emerging corporations, and grow at rates approximately equal to that of their industry group. They issue relatively little new equity to finance their expansion, relying primarily on retained earnings and borrowings. They are likely to pay out dividends to their shareholders and, especially in recent years, may actually repurchase previously issued shares. Those that grow relatively quickly are likely to achieve their growth by merging with other businesses as opposed to expanding from within. Emerging corporations, by contrast, actively seek to increase their market share. They look to external finance to accommodate their expansion plans.

Some statistical data are available by size of company, but size in itself is not a definitive indicator of "maturity." For example, mature manufacturing firms tend to be larger than mature service firms because of greater possibilities for economies of scale in manufacturing. Therefore comparisons by size must also distinguish by industry. Data by age are harder to come by, but would also not be a definitive indicator of whether a company is mature. For example, in some cases fairly stable companies take on new growth strategies as a result of changes in ownership or management. The next section uses some statistics on financial ratios from a sample of corporations in the Standard and Poor's Compustat database, and contrasts them with corporations that had just made an initial public stock offering. By and large, companies in the latter sample are substantially smaller and younger, and even those that are large and of long standing could be considered to be "emerging" because their decision to tap into national equity markets signals a planned change in scale or scope. In later sections of the article considering policies to retain earnings or pay out dividends, direct data are not readily available, so the analysis is based on presumed characteristics of mature and emerging corporations rather than on hard numbers.

3. Access to Debt

Because of tax laws, corporations prefer to finance capital expansion using debt rather than equity. By issuing debt, the income generated by new investments is subject to only one layer of tax. Income from equity is taxable both to the corporation and its shareholders. Therefore restricted access to debt could raise the relative cost of capital for emerging corporations. A comparison of debt-asset and debt-equity ratios from the Compustat database and a sample of newly public corporations confirms that emerging corporations have relatively limited access to debt markets. The data are presented for disaggregated industries to control for non-tax obstacles to using debt that vary across the economy. For example, corporations with highly cyclical cash flows are especially reluctant to incur an obligation to make regular interest payments.

Ideally, one would want to compare emerging and mature corporations with respect to their financing of new investment projects. But about the best that can be done is an overall comparison of debt accumulated to finance existing assets, or debt relative to shareholders' equity. The data for mature corporations come from over 2400 corporations in the Standard and Poor's Compustat Industry Aggregate Database. The average book value of assets per company was estimated at $781 million for manufacturing corporations, $1444 million for transportation, communication, and utilities, $331 million for trade, and $207 million for services.[2] The ratios in each industry are measured as the sum of debt divided by the sum of assets or equity, so they give added weight to larger corporations. For emerging companies, data are taken from Going Public: The IPO Reporter. This publication covers essentially all corporations making initial public offerings. Because of the large number of IPOs in 1986, that year was chosen for the comparisons. Total assets, long-term debt, and shareholders' equity were available for 237 of the 416 domestic nonfinancial corporations making initial public offerings in 1986.[3] Many of these companies were of recent vintage, but some had started as divisions of larger corporations and some others had been privately held for a number of years. The IPO sample is less concentrated in manufacturing than the Compustat companies. The average size of assets in 1986 was much smaller: $102 million in manufacturing, $148 million for transportation, communication and utilities, $73 million for trade, and $26 million for services. These mean values far overstate the size of a typical firm. For example, half of the manufacturing firms had assets valued at less than $26 million and half of the services firms had assets valued at less than $12 million.[4] Although these companies are very much smaller than those in the Compustat database, they are still significantly larger than what is usually referred to as "small business."

a. Ratios of Debt to Assets and Debt to Equity

Table 3 indicates debt-to-asset ratios for mature and emerging corporations in 1986. Table 4 presents debt-to-equity ratios for the same groupings. Debt consists of interest-bearing liabilities. By accounting identity, assets equal the sum of shareholders' equity, debt, and other liabilities such as accounts payable, tax liabilities, and other accrued expenses. (The contribution of these other liabilities may cause some divergence in the patterns indicated between table 3 and table 4.)[5] The first three columns of numbers compare long-term debt for mature and emerging companies. As indicated in table 3, the ratio of long-term debt to assets ranged from 17 percent in manufacturing to 34 percent in services for the Compustat companies. The ratios for the IPO companies were generally substantially smaller.[6] In services industries, the IPO companies' average debt ratio was 17 percent, about half that of the mature companies. In trade, the long-term debt ratios were one-third lower than for the Compustat companies, and in manufacturing, they were one-tenth lower. Only in transportation, communication, and utilities were they comparable to those in the Compustat sample. The third column presents median values rather than means for the IPO sample. Many emerging companies have very low long-term debt ratios, and the industry averages are brought up by relatively few companies using large amounts of debt (chart 1). The median values, which mark the division between the bottom and top halves of the sample, are a better indicator for the "typical" IPO company in each industry. (The Compustat sample does not appear to have such an asymmetric distribution, according to other research using observations for individual companies. Therefore means and medians are approximately equal.)[7] Within both manufacturing and services, the overall median ratios for IPO companies are below 10 percent, and for each disaggregated manufacturing industry the median ratio is far below the counterpart in the Compustat sample.

In Table 4, long-term debt-to-equity ratios for mature corporations average 42 percent in manufacturing and 107 percent in services, and they take on intermediate values in the other industry groups. The mean ratios for the IPO companies are typically higher (except for services), but are distorted upward not only by selected companies with high use of debt but also by selected companies with very low values of shareholders' equity as a result of operating losses in early years. The median values of debt-to-equity confirm the findings of low useage of debt: the ratio is 20 percent in manufacturing and 16 percent in services. Except for transportation, communication, and utilities and manufacturing industries not shown separately (because of low instances of initial public offerings), the ratios are substantially below those measured for mature industries.

The accessibility of long-term debt is important for the analysis of the cost of fixed capital, such as plant and machinery. Because these assets have relatively long lives, risk-averse firms are unlikely to finance them with short-term loans that must be renegotiated each year. The relevant choice is between long-term debt and equity. On the other hand, total debt is relevant for considering aggregate investment, which includes assets such as inventories. Some economists believe that it is also misleading to associate different investments with particular sources of finance. Andrews and Eisemann (1980) argue that the fungible nature of funds means that once companies acquire financing, it may be used for any cash need. In particular, they observe that small businesses make use of a variety of sources to finance the purchase of fixed assets. Whether this informal financing of capital is possible once corporations become larger than those in the Andrews and Eisemann study is open to debate.

For corporations in the Compustat sample, adding in short-term interest-bearing liabilities contributes six percentage points to the debt-to-asset ratio on average (table 3). The ratio in manufacturing is 24 percent, and in services 40 percent, for example. Unfortunately, The _IPO Reporter_ does not provide short-term debt, so an approximation was used. For each industry, other liabilities were computed by subtracting long-term debt and shareholders' equity from total assets. Then it was assumed that short-term debt constituted the same proportion of this total as it did in the Compustat sample (with the remainder attributable to items such as accounts payable, tax liabilities, and other accrued expenses).[8] The results continued to indicate a lower debt-to-asset ratio than for mature companies, especially when median values were used. In manufacturing, the overall median ratio for the emerging corporations averaged 5 percentage points below that for mature companies, and usually exhibited a bigger difference in the individual industries with a substantial concentration of IPOs. The ratio for emerging corporations was three-quarters as large in trade and only about 40 percent as large in services compared to the Compustat data. The debt-equity ratios showed less of a difference than the debt-asset ratios, but were still very much lower for new companies in services than for established companies.

Among the mature corporations, those in the services sector had the highest debt ratios in 1986. It might be expected that an industrial structure shifting toward services and away from manufacturing would tend to raise the proportion of debt used to finance corporate investment. But the IPO sample indicates the opposite, since emerging services corporations had lower ratios of debt to assets or equity than emerging manufacturing corporations. Apparently the nature of these new services companies is different from more mature companies.

b. Technology-Oriented Companies

Finally, for the emerging corporations, an analysis was performed to determine whether technology-oriented companies differed from other companies in their use of debt. Many analysts believe that these companies are important for international competitiveness, because of their own potential for high growth and because of the spillover benefits of their research for other sectors (see the volume edited by Landau and Jorgenson 1986). To the extent they use specialized equipment and invest in additional assets not suitable for collateral, they may have a hard time attracting credit. In services, the results were clear. Companies in technology-oriented industries such as computers and medical and other research laboratories had far less access to debt than companies in industries with less of an orientation toward technology. In manufacturing, the results held up if median debt-asset ratios or debt-equity ratios were used, but not for mean debt-asset ratios.

c. Comments and Caveats

The empirical results in this section have indicated that the typical young corporation planning significant expansion finances a lower fraction of its assets using debt than does the large, established corporation. The results tend to carry over to comparisons of debt-equity ratios. Lower availability of debt, all else equal, means that emerging corporations face a higher cost of capital because of their inability to take advantage of tax incentives for this form of finance. These findings conflict with the results of a previous study by Andrews and Eisemann (1981) that emphasized the reliance on debt finance by small businesses, but their focus tended to be on very small businesses and they did not control for industrial mix.

No data set is perfect for analyzing these issues, and the current ones contain some shortcomings that deserve comment. First, the debt-asset ratios of mature firms may be understated because debt is usually amortized faster than assets are depreciated in financial accounts (Kopcke 1989). Because companies in the Compustat database are older on average, their reported debt-asset ratios may be low relative to those in the IPO database. For some industries, particularly services, the reported discrepancy is so large that it seems unlikely to disappear with alternative accounting procedures, however.

The measured debt-equity ratios appear to have a weakness that would work in the opposite direction. Shareholders' equity in newly emerging corporations tends to be reduced because of negative or low earnings in the initial period of a company's history. Several years later, the company may be using more equity (and relatively less debt) to finance new investments than is apparent from ratios reflecting its entire history.[9] Because of this relative overstatement of the use of debt by young companies in the IPO database, it is even more striking that the debt-equity ratios for typical companies in each industry are as low as indicated.

Finally, the data did not permit an analysis of flows of funds, but assumed that new capital would be financed in a manner reflecting the cumulation of historical decisions for both sets of companies. Clearly, more research is called for.

4. Issues in Measuring the Cost of Equity Capital

The previous section indicated that emerging corporations tend to have a higher cost of capital than mature corporations because they are less able to finance their investments by debt. This section examines the contribution of tax policy to the cost of equity capital. For most corporations, the capital gains tax is the most important element of the personal tax on income from equity ownership. But the theory of the relative role of dividend and capital gains taxes is a matter of dispute among economists, and therefore it is impossible to say unambiguously whether tax policy favors emerging or mature corporations in this respect. The calculations used for table 1 adopted the so-called "new view" of dividend taxation, which maintains that emerging corporations are disadvantaged relative to mature corporations. The "old view," on the other hand, holds that emerging corporations have a lower cost of equity capital than mature corporations (keeping non-tax factors constant), but that their relative advantage shrank under the Tax Reform Act of 1986. Finally, a recent line of research emphasizes the costliness of external finance beyond what can be measured by tax factors alone. This suggests that emerging corporations face especially high costs when they issue new shares to finance their expansion.

a. Taxes on Shareholders and Equity Costs: An Unresolved Dispute

The "old view" and the "new view" are identical with respect to their measurement of capital gains taxes and dividend taxes. Equity that is retained and reinvested generates accrued capital gains that are not taxed until realization. If the shares are held until death, they escape tax altogether. Because of these deferral and forgiveness features, capital gains are effectively taxed at a lower rate than dividends, even now that both types of income face identical tax rates when they are reported on individuals' tax returns. The reasons that firms pay dividends are largely still a mystery, although economists have tried to measure non-tax factors, such as the value of signals dividends can convey to shareholders.

The old view and new view of dividend taxation differ in the relative weights they assign to the relatively highly-taxed dividends compared to capital gains in the overall cost of equity finance. (table 5). The new view of dividends stresses financial decisions at the margin. To retain one more dollar of earnings, the corporation must forego a dividend payment. The opportunity cost of this dollar of retentions is equal to one dollar less the dividend tax that would have to be paid. When the returns from the reinvested retained earnings are ultimately paid out to shareholders, they are subject to dividend tax. But because the dividend tax enters into the calculation of the opportunity cost of retaining earnings, the return to shareholders relative to dividends foregone initially is independent of the dividend tax. Therefore in calculating the cost of retained earnings, only capital gains taxes matter.

The dividend tax does affect the cost of new share issues. To invest an additional dollar, the corporation issues a dollar of new shares. These earn a rate of return that is ultimately taxed at the dividend tax rate when paid out to shareholders.

For corporations as a whole, new share issues are a minor source of equity capital. King and Fullerton (1984) estimated that 93 percent of equity is raised through retained earnings, and only 7 percent from new shares. Therefore, capital gains taxes are the predominant form of taxation of equity income under the new view. This theory implies that emerging corporations are especially disadvantaged by the tax code, because their proportion of finance through new share issues is higher than average. In effect, they face the higher dividend tax on a relatively greater proportion of their equity.

The old view of dividends emphasizes observed ratios of retained earnings and dividend payouts. Historically, U.S. corporations in the aggregate have retained about 60 percent of their profits, and paid out about 40 percent (Poterba 1987). The old view takes these weights for the capital gains tax and the dividends tax, respectively. Extending this theory to emerging and mature corporations implies that emerging corporations have a relatively low cost of equity capital because they usually do not pay dividends. The theory also leads to the conclusion that by increasing capital gains tax rates and decreasing dividend tax rates, the Tax Reform Act of 1986 hurt emerging corporations relative to mature corporations.

Unfortunately, empirical evidence on the role of dividend taxation has been inconclusive. Bradford (1981) and Auerbach (1984) found evidence in support of the new view, while Poterba and Summers (1985) rejected it. So although I have chosen to employ the new view of dividend taxation in my calculations of the cost of capital, policymakers should realize that the economics profession does not speak with one voice on this issue.

b. Cash Flow Constraints

A related line of research suggests that emerging corporations face a substantial cost disadvantage in having to seek external equity finance, beyond that suggested purely on the basis of tax measures. The problem arises because potential shareholders do not know how to interpret new share issues. In some cases, the issuance of new shares implies that existing shareholders have information that leads them to expect low future earnings, and they are therefore willing to dilute their ownership of the company. In other cases, it simply means that profitable investment opportunities outstrip internal funds. Because prospective shareholders cannot distinguish good opportunities from bad opportunities, they demand a premium to buy shares. This raises the cost of external equity finance. In support of this theory, Fazzari, Hubbard, and Peterson (1988) found that internal cash flow often serves as a constraint on investment, beyond what would be expected based on tax theories alone. Applying these results to emerging corporations with limited ability to borrow and investment opportunities in excess of their retained earnings, the study suggests that the high cost of new share issues puts these companies at a competitive disadvantage.

5. Institutional Ownership of Equity and Debt

The measurement of the cost of capital in section 1 depended on an assumed mix of taxable and nontaxable entities providing financing to corporations. If funds are provided by institutions that are not taxed, such as pension funds, the corporation's cost of funds should be lower. This is because investors demand a higher rate of return from corporations if they must pay taxes on the capital gains, dividends, and interest they receive. This section discusses what is known about the ownership of equity and debt, and concludes that greater institutional ownership of the securities issued by mature corporations gives them a capital cost advantage over emerging corporations.

The calculations in table 1 assumed that debt and equity finance were provided to corporations in line with observed ownership. Households are the most common supplier of equity finance (table 6). According to data from the Flow of Funds, they accounted for 64 percent of corporate equity ownership in 1988. Untaxed institutional investors, especially pensions, accounted for most of the remainder. For corporate debt, households account for under half of total ownership, and most of this is "indirect" ownership through shares of mutual funds that purchase corporate bonds and through deposits at banks and savings institutions that make loans to corporations. The role of institutional investors is greater in debt markets than in equity markets.

Evidence from securities markets indicates that untaxed investors are more important for large, established corporations than for smaller corporations whose shares are held largely by households. On the New York Stock Exchange, noninstitutional investors have accounted for only about 10 percent of total volume since 1987. Even before the rise in capital gains taxation in 1987, they accounted for just 30 percent (Securities Industry Association).[10] By contrast, in the over-the-counter market, where smaller firms' shares are traded, noninstitutional investors account for about 80 percent of total volume.

Institutions are important investors for certain young businesses, however. For example, in the past decade they have been major providers of capital through venture capital funds. Together, pension funds, foreigners (who face no capital gains taxes in the United States), and nonprofit institutions together provided over 70 percent of funds raised by the venture capital industry in 1988 (table 7). But it is important not to exaggerate the importance of organized venture capital. In recent years, initial public offerings of companies backed by venture capital were only one-fifth of total IPOs (Henderson 1989). Wealthy individuals and entrepreneurs remained an important source of funds, as did corporations through their funding of divisions or subsidiaries that later made public offerings.

Established corporations also have a disproportionate access to untaxed institutional investors through the bond market. Younger companies rely heavily on financial intermediaries such as banks rather than on direct credit (Gertler and Hubbard 1988). In effect, they are borrowing funds from households who have accounts at these institutions and face taxes on interest received.

6. Production Processes and the Mix of Capital Assets

So far, the analysis has emphasized financial distinctions between emerging and mature corporations. The current section examines potential differences in production processes. Before the passage of the Tax Reform Act of 1986, effective tax rates varied widely across assets. Even now, machinery and equipment are taxed at somewhat lower rates than other assets because of accelerated depreciation. If emerging and mature corporations differ in their asset mix, then this would be another factor contributing to differences in the cost of capital.

No study has looked specifically at this issue, but a comparison of high-technology industries with economy-wide averages by Fullerton and Lyon (1986) indicated very little difference in capital costs due to differences in asset composition. Using a methodology very similar to that used to generate table 1, they found that high-technology industries (identified according to research and development intensity) had slightly lower capital costs than all industries in the early 1980s based on their observed use of machinery, equipment, and structures. Measured in terms of an effective tax rate, the difference in any given year was never larger than three percentage points, however.

To the extent that these results carry over to a general comparison of emerging and mature corporations, they indicate that differences in production activity are not important contributors to disparate capital costs. Because the Tax Reform Act succeeded in narrowing distinctions in taxation of different capital assets, this conclusion is more likely to hold now than in previous years.

7. Conclusions

This study has found that increases in capital gains taxes contributed about half the overall rise in the corporate cost of capital from the Tax Reform Act of 1986. The elimination of the capital gains preference raised these costs about eight percent for the average corporation, even considering offsetting effects of lower marginal tax brackets and accounting for lags between accrual and realization of capital gains and their forgiveness at death. That is, to earn a return of .04 net of all taxes, the typical corporation's threshhold pretax return has risen from .065 to .070 as a result of higher capital gains taxes, assuming that it uses a financing mix of one-third debt and two-thirds equity. This increase has deterred capital formation without improving the allocation of capital resources.

Any increase in the cost of equity funds is likely to impose a disproportionate burden on emerging corporations, discouraging their growth. The typical young corporation finances a lower proportion of its assets by issuing debt, and has a lower debt-to-equity ratio, than does the typical mature corporation. This comparison is especially sharp in the services sector. Technology-oriented companies also have particularly low access to debt. Although economists disagree on exactly how capital gains taxes and dividend taxes affect the cost of equity, and therefore on whether equity is more expensive for emerging than for mature corporations, they generally recognize capital gains taxes as a significant element of this cost. Furthermore, recent research indicates that a lack of internally generated funds serves as a constraint on investment beyond what an analysis based solely on tax policy would indicate. Young corporations' need to issue new shares hampers their capital expansion plans.

The cost of funds -- both equity and debt -- depends on whether investors and creditors are subject to taxation on their income. Mature corporations have relatively greater access to untaxed institutional investors such as pension funds, and therefore can afford to undertake investments with pretax returns lower than those undertaken by emerging corporations. Investors in young corporations are more likely to be individuals subject to capital gains taxes.

Finally, these financial distinctions between emerging and mature corporations were found to be more important than distinctions based on production activity. Differences in the reliance on equipment as opposed to structures are not particularly striking between high-technology businesses and others, and any existing differences were mitigated by the Tax Reform Act of 1986.

This paper has concentrated on evidence regarding capital costs, leaving to other researchers and policymakers the task of formulating a detailed policy response. Achieving an appropriate balance between goals for income distribution and for capital formation is always problematic. Considerations of fairness deserve a prominent role in policy discussions, but have been omitted from this study. Nevertheless, it might be appropriate to conclude with a few general comments on policy lessons regarding capital formation. Tax reformers interested in lowering the cost of investment in corporations relative to the cost of tax-preferred investments such as owner-occupied housing and consumer durables should attempt to eliminate the "double tax" on corporate equities. This would also serve to equalize capital costs between mature and emerging corporations. Lowering the effective tax rate on capital gains from corporate stock could form part of this response. Policymakers still have to weigh alternative mechanisms for achieving this result, including re-introduction of an exclusion for capital gains or adjustment of the basis for computing gains. Considerations of effects on particular investments and investors, as well as of revenues, enter into this decision. Also, policymakers must decide whether considerations of equity or administrative ease imply that favorable treatment should be extended to assets outside the corporate sector, as well as to gains on existing investments in addition to new investments. But whichever decision is made, a reduction in capital gains taxes could be enacted rather easily.

A reduced effective tax rate on capital gains still leaves in place significant distinctions between the tax treatment of debt and equity. These differences stem from the existence of a separate tax on corporate income in addition to taxes on shareholders. The original plans for tax reform in the mid-1980s included a proposal for partial tax integration through a corporate deduction for dividend payments. This plan never won the support of the business community because it appeared to discourage retention and reinvestment of earnings, and because other aspects of the reform package were more universally popular. Researchers and policymakers interested in eliminating penalties on investing in corporate equities may wish to revisit the possibilities for tax integration. A successful blueprint would encompass corporations that raise equity capital through retained earnings as well as new share issues, and corporations that pass returns to shareholders through capital gains as well as dividends. Tax integration would be a very ambitious undertaking, but it has the potential to encourage significant capital formation by corporations.

Footnotes

* The author is grateful to Jeff Liebman for research assistance. The views expressed in this paper are those of the author, and do not necessarily reflect official positions of the Federal Reserve Bank of Boston or the Federal Reserve System.

1. For further discussion of the specific methodology and its application to the Tax Reform Act of 1986, see Henderson (1986) and Fullerton, Henderson, and Mackie (1987).

2. The data base consists of observations by industry, not by corporation. Average assets were computed by dividing total assets in the industry by the reported number of corporations, and then the level was corrected using direct evidence on 500 large corporations.

3. The data for shareholders' equity refer to common equity only, but corporations that had issued preferred stock usually converted it to common stock prior to making a public offering.

4. The IPO corporations were assigned to industries on the basis of registries issued by the Securities and Exchange Commission and Standard and Poor's, supplemented by telephone conversations with employees of the Securities and Exchange Commission. For further financial information on these corporations, see Henderson (1989).

5. If debt were measured as the total of interest-bearing and non-interest-bearing liabilities, then the ranking of companies by debt-to-asset ratios and debt-to-equity ratios would be identical. Because this paper focuses on the tax treatment of interest, it is necessary to distinguish interest-bearing debt from other liabilities. As a result, the ranking of companies by debt intensity depends on which concept -- debt to assets or debt to equity -- is used. Consider a corporation with shareholders' equity (E) equal to 300, debt (D) equal to 200, and other liabilities (L) equal to 500. Total assets (A) would equal 1000 (E+D+L). Assume that a second corporation has E = 300, D = 100, L = 50, and A = 450. The first corporation has the higher debt-equity ratio (2/3, compared to 1/3 for the second corporation). The second corporation has the higher debt-asset ratio (2/9, compared to 1/5 -- or 2/10 -- for the first corporation). Because of this ambiguity, both measures of debt usage are indicated in the tables.

6. The IPO ratios in tables 3 and 4 take assets and equity averaged before and after the public stock offering. Prior to the offering, the ratios might understate companies' desired levels of equity. But given fixed costs of issuing stock, companies tend to make only periodic offerings, so the post offering ratios might overstate companies' desired levels of equity.

7. Bernanke and Campbell (1988) report a mean (short-term plus long-term) debt-asset ratio of .273 and a median ratio of .289 for a sample of over 600 Compustat companies in 1986.

8. Total other claims were a far larger fraction of liabilities for the IPO companies than for the Compustat companies, so the procedure of allocating a fraction to short-term debt is subject to considerable error. A spot check of the financial statements for several electronics industry companies indicated that the procedure may understate short-term debt on average. A more definitive analysis would require amassing this information for the many remaining corporations.

9. Other related factors ignored in the above analysis are the incomplete deductibility of interest payments when operating income is low, as well as imperfect loss carryforward provisions.

10 The data since 1987 may not be comparable to data prior to 1987 because of revisions by the Securities Industry Association that removed all dividend capture activity and three-fourths of program trading activity from the retail and other category, and allocated it to the institutional category starting in 1987.

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Table 1

Changes in the Cost of Corporate Capital under the Tax Reform Act of 1986
(Calculations assume a net-of-tax rate of return equal to .04)

Asset	Prior Law	Tax Reform Act of 1986		TRA Percent Difference from Prior Law	
		All Provisions	Capital Gains Provisions Only	All Provisions	Capital Gains Provisions Only
Machinery and Equipment	.042	.069	.046	66.3	9.4
Nonresidential Structures	.072	.079	.076	10.6	6.9
Public Utility Structures	.063	.078	.067	24.0	6.7
Inventories	.079	.076	.085	-4.2	7.7
Land	.083	.079	.089	-4.0	7.4
Total[a]	.065	.075	.070	14.5	7.8

[a] Using each asset's share of the total capital stock in 1984: machinery and equipment, .292; nonresidential structures, .151; public utility structures, .113; inventories, .343; land, .101.

Source: Fullerton, Henderson, and Mackie (1987) and author's calculations.

Table 2

Federal Taxation of Nominal Corporate Interest and Capital Gains, 1986 and 1988, Holding Capital Cost Recovery Provisions Fixed

	1986	1988
Interest		
Households[a]	.215	.185
Insurance Companies	.46	.34
Weighted Average Tax Rate, Including Tax-Exempt Institutions	.149	.122
Capital Gains		
Corporate Income Tax Rate	.46	.34
Households		
Weighted Average Statutory Individual Income Tax Rate	.410	.267
Inclusion Rate	.4	1.0
Tax Rate on Capital Gains	.164	.267
Advantage of Deferral and Step-up of Basis at Death	.25	.25
Net Tax Rate	.041	.067
Insurance Companies[b]	.14	.17
Weighted Average Tax Rate, Including Tax-Exempt Institutions	.477	.372
Differential Tax between Capital Gains and Interest	.328	.250

[a] Including an adjustment for untaxed imputed interest.

[b] Including an adjustment for deferral.

Source: Author's calculations using methodology in King and Fullerton (1984).

Table 3

Debt to Asset Ratios for Mature and Emerging Corporations by Industry, 1986[a]
Percent

	Long-Term Debt			Total Debt			Sample Size (Number of Companies)	
	Mature	Emerging		Mature	Emerging[b]		Mature	Emerging
		Mean	Median		Mean	Median		
Total Nonfinancial	23.0	18.5	9.8	28.5	25.9	18.9	2422	237
Manufacturing	17.4	15.7	8.0	23.7	23.7	17.8	1245	93
Food and Tobacco	22.4	14.6	7.8	32.1	25.3	18.4	93	6
Chemicals	18.1	10.4	1.3	25.6	18.1	11.9	137	12
Industrial and Computing Equipment	13.2	25.5	3.9	22.2	29.2	13.8	224	8
Electronic Equipment	12.3	7.9	4.6	18.9	14.3	14.2	123	17
Measuring Instruments	11.7	26.6	2.5	18.1	34.2	11.4	99	11
Miscellaneous Manufacturing	21.0	7.6	1.1	31.3	24.6	23.5	41	7
All Other Manufacturing	18.9	17.5	14.0	23.5	25.4	22.3	528	32
High-Technology Industries[c]	n.a.	16.9	3.0	n.a.	22.5	12.4	n.a.	38
Non High-Technology Industries	n.a.	14.8	10.4	n.a.	24.6	20.9	n.a.	55
Transportation, Communication, Utilities	31.6	31.5	27.4	34.9	35.5	33.0	370	26
Wholesale Trade	24.2	16.0	11.3	31.7	26.3	23.8	153	15
Retail Trade	24.1	17.0	14.2	32.7	27.2	24.3	291	30
Services	34.1	17.3	7.2	40.1	23.4	15.6	249	69
Technology-Oriented Industries[d]	n.a.	16.6	5.6	n.a.	23.0	14.0	n.a.	47
Non Technology-Oriented Industries	n.a.	18.8	7.7	n.a.	24.3	16.3	n.a.	22

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[a] For mature corporations, the ratios are value-weighted means. Bernanke and Campbell (1988) indicate that means and medians are similar in Compustat sample. For emerging corporations, they are means and medians of ratios for individual companies averaged before and after their initial public stock offers. Individual industries are shown separately if there are at least six observations of companies going public in 1986.

[b] Short-term debt component estimated based on the observed ratio of short-term debt to liabilities excluding long-term debt in mature corporations.

[c] SIC codes 283 (drugs), 286 (industrial organic chemicals), 357 (office and computing equipment), 366 (communications equipment), 367 (electronic components), 372 (aircraft), 376 (missiles), 380 (instruments). Definition from U.S. Congressional Budget Office (1985).

[d] SIC codes 737 (computers and data processing), 7389-7399 (business services not elsewhere classified), 805-809 (health services), 8731 (commercial physical research), 8734 (testing laboratories).

Source: Compustat Industry Aggregate Database and Going Public: The IPO Reporter.

Table 4

Debt to Equity Ratios for Mature and Emerging Corporations by Industry, 1986[a]
Percent

	Long-Term Debt			Total Debt			Sample Size (Number of Companies)	
	Mature	Emerging		Mature	Emerging[b]			
		Mean	Median		Mean	Median	Mature	Emerging
Total Nonfinancial	58.6	122.5	22.2	72.8	191.5	56.9	422	210
Manufacturing	42.4	115.3	20.1	57.8	213.1	54.5	245	86
Food and Tobacco	62.3	86.1	17.3	89.3	156.0	131.5	93	5
Chemicals	43.4	64.7	2.3	61.2	96.9	17.5	137	10
Industrial and Computing Equipment	30.1	37.9	9.3	50.6	57.1	37.5	224	8
Electronic Equipment	26.8	39.8	16.7	41.2	66.0	26.9	123	17
Measuring Instruments	25.9	91.6	5.1	40.3	139.3	45.8	99	9
Miscellaneous Manufacturing	48.5	112.6	2.8	72.5	318.0	127.9	41	7
All Other Manufacturing	47.8	213.3	49.6	59.5	384.1	86.5	528	30
High-Technology Industries[c]	n.a.	43.9	6.1	n.a.	66.0	30.1	n.a.	37
Non High-Technology Industries	n.a.	165.1	43.7	n.a.	314.1	84.2	n.a.	53
Transportation, Communication, Utilities	82.6	241.9	80.5	91.3	283.3	125.6	370	21
Wholesale Trade	67.6	348.4	39.2	88.4	453.5	111.8	153	14
Retail Trade	76.5	89.2	43.6	103.7	145.4	83.7	291	26
Services	106.8	42.9	16.3	125.6	72.0	37.5	249	60
Technology-Oriented Industries[d]	n.a.	39.6	13.5	n.a.	69.4	34.0	n.a.	40
Non Technology-Oriented Industries	n.a.	49.3	19.4	n.a.	77.2	46.5	n.a.	20

[a] For mature corporations, the ratios are value-weighted means. Bernanke and Campbell (1988) indicate that means and medians are similar in the Compustat sample. For emerging corporations, they are means and medians of ratios for individual companies averaged before and after their initial public stock offering. Observations are omitted if equity is negative. Individual industries are shown separately if there are at least six observations of companies going public in 1986. All ratios are book values.

[b] Short-term debt component estimated based on the observed ratio of short-term debt to liabilities excluding long-term debt in mature corporations.

[c] SIC codes 283 (drugs), 286 (industrial organic chemicals), 357 (office and computing equipment), 366 (communications equipment), 367 (electronic components), 3[illegible] (aircraft), 376 (missiles), 380 (instruments). Definition from U.S. Congressional Budget Office (1985).

[d] SIC codes 737 (computers and data processing), 7389-7399 (business services), 805-809 (health services), 8731 (commercial physical research), 8734 (testing laboratories).

Source: Compustat Industry Aggregate Database and Going Public: The IPO Reporter.

Table 5

Personal Income Taxation of Corporate Equities Under Alternative Theories

	Tax Rate on Equity Capital		Effect of 1986 Tax Reform	
	Corporations in General	Emerging vs. Mature Corporations	Corporations in General	Emerging vs. Mature Corporations
New View of Dividend Taxation	Capital gains tax rate x(retained earnings/ equity finance) + dividend tax rate x(new share issues/ equity finance). Estimated weight observed for capital gains tax = .93, for dividend tax = .07.	Rate for mature corporations dominated by capital gains tax because they tend not to issue new shares. As a result, tax policy lowers the cost of equity capital for emerging corporations.	Taxation of equity capital increased substantially because of increase in capital gains tax rate.	Changes tended to raise the cost of capital for mature corporations relative to that for emerging corporations.
Old View of Dividend Taxation	Captial gains tax rate x(retained earnings/ profits) + dividend tax rate x(dividends/ profits). Estimated weight observed for capital gains tax = .6, for dividend tax = .4.	Rate for emerging corporations dominated by capital gains tax because they tend not to pay dividends. As a result, tax policy lowers the cost of equity capital for emerging corporations relative to that for mature corporations.	Taxation of equity capital changed minimally, because increased capital gains tax rate offset by decreased dividend tax rate.	Changes tended to raise the cost of capital for emerging corporations relative to that for mature corporations.

Table 6

Distribution of Ownership of Corporate Equity and Debt, 1988[a]
Percent of Total

	Equity	Debt
Households[b]	64	45
Pension Funds	23	34
Foreigners	5	9
Nonprofit Institutions	4	—[c]
Insurance Companies	3	11

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[a] Excluding finance provided by other nonfinancial corporations.

[b] Including indirect ownership through mutual funds, savings institutions, commercial banks, and other financial intermediaries not listed below. Excludes estimate attributable to nonprofit institutions.

[c] Not available separately; included under households.

Source: Calculated by the author from Board of Governors of the Federal Reserve System, Flow of Funds Accounts using the methodology of King and Fullerton (1984).

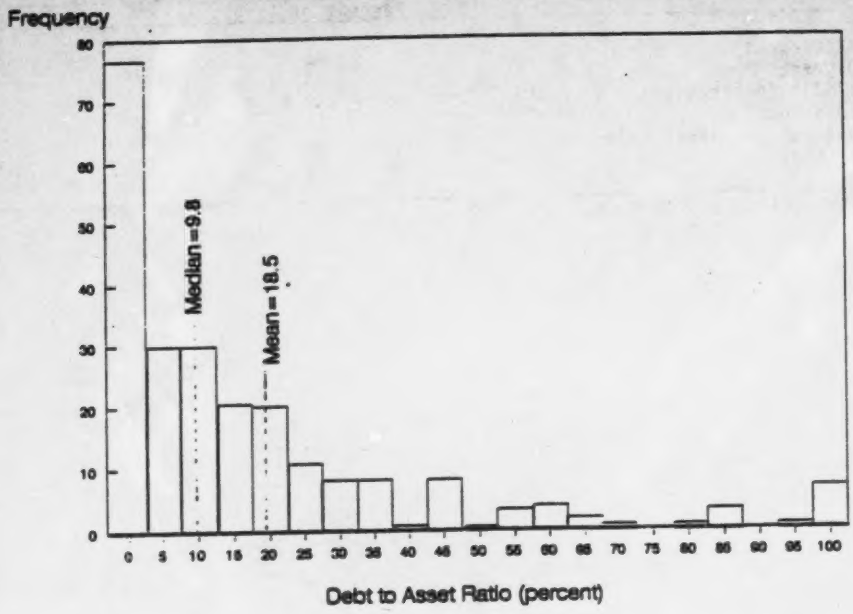
Table 7

Sources of Finance for Private Independent Venture Capital Funds, 1988

	Percent of Total
Pension Funds	46
Foreigners	14
Nonprofit Institutions	12
Corporations	11
Insurance Companies	9
Households	8

Source: Venture Economics.

Chart 1 Frequency Distribution of Long-Term Debt to Asset Ratios for Emerging Corporations



Counterrevolution

After a decade dominated by antigovernment exhortations, the view that public spending can be a boon to private productivity is making something of a comeback.

BY JONATHAN RAUCH

Here's some good news for everyone who's tired of worrying about the budget deficit and the trade deficit. Now there's another deficit to worry about. It's being called the investment deficit, and it is emerging as the conceptual nucleus of a rebellion against Reaganomics.

"America Needs Increased Public Investment, Now," ran the headline over a statement that 327 economists recently signed. The statement was sponsored and published by the Economic Policy Institute, a liberal think tank in Washington, and it was a sign of the times. "America faces a 'third deficit'—the deficiency of public investment in our people and our economic infrastructure," the statement read, calling for higher taxes to fill the hole. "This deficit will have a crippling effect on America's future competitiveness."

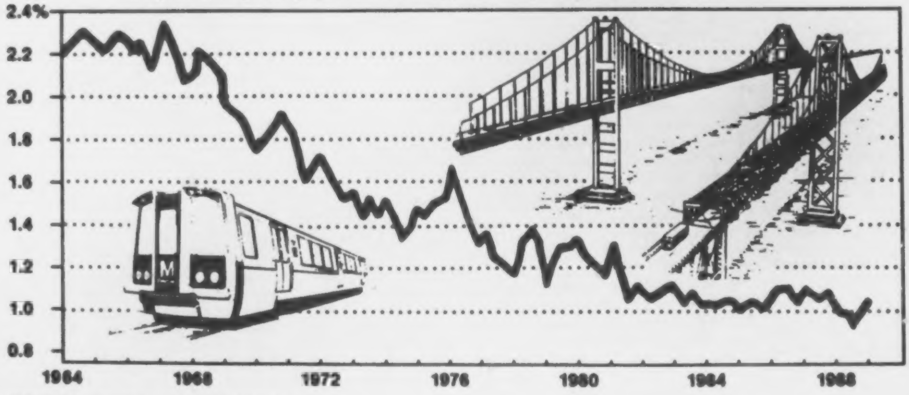
The letter drew many more signatures than the few dozen that its sponsors initially expected, according to the institute. It's an indication that after a decade dominated by Reaganomics' antigovernment exhortations, the view that public-sector spending can be a boon to private productivity is making something of a comeback.

"I think you probably wouldn't have gotten all those economists willing to stand under the same umbrella three or four years ago," American University economist Howard M. Wachtel, one of the signers of the statement, said in a recent interview. "Traditional Keynesian economists would have signed that letter, but not others. It's sort of an emerging consensus."

The new rebellion has two related aspects. In the first place, it amounts to a Declaration of Independence from the federal budget deficit—or at least, as Economic Policy Institute president Jeff Faux put it, from the obsession with the budget deficit. "A lot of people now are getting increasingly uncomfortable with saying that in order to get out of the hole that Reagan put us in, we have to keep squeezing the public sector," Faux said. "The people who signed this are saying, 'We've

America's 'Crippling' Investment Deficit

Capital outlays for public works as a percentage of gross national product



SOURCE: Merrill Lynch Capital Markets

got a budget deficit, we all understand that—but despite that, the need to reinvest is as big a problem as the trade and fiscal deficits.' "

Indeed, many of the signatories, including Faux, now regard the investment deficit as a bigger problem than its budgetary counterpart. They would be willing to countenance increasing the budget deficit, if necessary, to raise money for roads and bridges, airports, research, education, child nutrition and other kinds of public spending that they regard as vital to productivity.

"We're letting ourselves become an underdeveloped country in terms of our public capital," economist Alan S. Blinder said in an interview from his office at Princeton University. "I prefer more infrastructure spending financed by taxes, but if you ask me to pick the lesser of two evils—don't do the infrastructure spending, or raise the deficit to do it—I pick the latter."

Perhaps more important, the rebellion is a frontal assault on the economic Reagan Doctrine, which holds that government is the problem, not the solution. Just the contrary, the revisionists say: Government *is* the solution, because lack of government investment is a major component of the problem.

This argument has a new empirical backbone, in the form of influential recent research by David Alan Aschauer of the Federal Reserve Bank of Chicago. Aschauer—who calls himself "pretty conservative"—finds a close link between the decline in public-sector investment over the past 20 years and the decline in private-sector productivity. Far from burdening private productivity, Aschauer finds, government spending on roads, bridges, sewers, airports and the other so-called public goods actually increases it. And far from displacing private investment, public investment actually spurs more of it.

"I see this as a component of supply-side economics," Aschauer said in an interview. (In its economic, as opposed to political, usage, supply-side thinking concerns itself with constraints on the economy's ability to produce more goods at lower prices.) "I'm essentially free-market-oriented," he said, "but there are certain things the government should do on the supply side of the economy, such as providing public capital, in order to allow private output to prosper."

The need for more public investment, in human as well as physical capital, has emerged as a central tenet for a group that has been called supply-side Democrats. *(See NJ, 7/16/88, p. 1856.)* Business economists—for instance, Donald H. Straszheim of Merrill Lynch Capital Markets in New York City and David D. Hale of Kemper Financial Services in Chicago—are also calling on government to unclog the infrastructure and education bottlenecks.

Economic Policy Institute president Jeff Faux
"The need to reinvest is as big a problem as the trade and fiscal deficits."

"The major supply-side concerns of American economists today are not marginal tax rates, but education, infrastructure and quality of public service," Hale wrote in a paper that Kemper published in June. "The deterioration of the nation's infrastructure, especially highways and bridges, . . . has generated new awareness among economists that there are supply-side constraints on growth which can be corrected only through public expenditure."

To free-market conservatives, this is familiar, tired stuff. "This is nothing new under the sun—it's part of an ancient conventional wisdom," said Norman B. Ture, a Treasury official during the Reagan Administration who now heads the Institute for Research on the Economics of Taxation in Washington. "What did Ronald Reagan leave us as a legacy? It was the conviction that we will do better as a society if we constrain the role of government. For the huge body of the economics profession and the political science profession, this always was anathema. This [response] is part of the counterrevolution to the Reagan Revolution."

Just so. "It *is* a counterrevolution, though that's easy to overdramatize," Laura D. Tyson, a University of California (Berkeley) economist, said in a recent interview. "There always has been in economics a tension between public and private spending," said Tyson, who signed the economists' letter. "One notion uniting this group is that the balance has shifted too far."

MAKING THE CASE

The counterrevolutionaries' case against Reaganomics isn't undiscriminating. It does not say that government programs are good, period. Instead, it pries at the laissez-faire framework with the theoretical crowbar of public goods.

In theory, a public good is something that the economy needs but that private markets are ill-suited to provide. The idea is that sidewalks and streets, for instance, can be used by anybody for free, and so no one could make a profit by investing in them. Roads, bridges, airports, education and so on are all critical to productivity but are not adequately supplied by private entrepreneurs; therefore, they are public goods.

Free-marketers have their doubts. Ture likes to cite the cynic's definition of a public good: something that some people think other people should have more of. Most of what the government does, the conservatives say, could be done better by the private sector. "Who says that garbage collection should be public?" Ture asks. "It's much more efficiently done privately." That's the heart of the privatization movement so beloved of the Reagan Administration and its allies at the Heritage Foundation.

Free-marketers also have their doubts—to put it mildly—about the notion that public-sector spending adds to national wealth. At the libertarian Cato Institute in Washington, executive vice president David Boaz argues, as many free-marketers do, that any good or service provided by government rather than by markets will be provided less efficiently. "My view," he said, "is that whatever dollars are withdrawn [by the government] from the private sector are a net loss to the economy." This means that the smaller the government gets, on the whole, the better the economy works.

Critics of this view say two things. First, government is not necessarily less efficient than the private sector. Blinder, whose monthly column in *Business Week* makes him one of the most visible of the public-investment advocates, points to studies of city garbage collection provided by open private competition, by a private monopolist and by the government. "There's no strong case that one or the other is cheaper," he said.

Second, the reply goes, such goods as airports and schools remain mainly within the public domain, like it or not. Even if private provision worked better, it isn't about to happen, which means that needed improvements in roads and schools are going to be made publicly or not at all. And improvements, the pro-investment group says, are urgently needed.

The numbers are clearest on physical infrastructure. Merrill Lynch figures that spending by all levels of government on infrastructure—highways, mass transit, airports and airways, waterways and facilities for water supply and waste disposal—has declined sharply as a percentage of the national output: from about 2.2 per cent of gross national product in 1964 to about 1 per cent today. (*See chart, p. 2142.*)

As priorities shifted away from concrete-pouring and toward income-transfer programs such as social security and medicare, federal spending for infrastructure fell from 10.9 per cent of nondefense spending in 1962 to 4.5 per cent in 1987, according to Merrill Lynch. Infrastructure spending by all levels of government fell from 19 per cent of total government spending in 1950 to 6.8 per cent in 1984.

The spending numbers themselves don't tell you whether too much or too little is being spent. One view is that many of the reductions have been in pork barrel dams and useless waterways. Public-investment advocates reply by pointing to figures such as those in the Transportation Department's recent report on the interstate highway system, which found that the share of the system's bridges that are classified as deficient rose from 10.6 per cent in 1982 to 15.9 per cent last year.

In New York City, the 86-year-old Williamsburg Bridge over the East River is falling apart and had to be closed for a few months last year. In Charleston, W.Va., two of the city's main bridges are down to two lanes each. Half of West Virginia's bridges are either structurally deficient or functionally obsolete, according to a spokeswoman for the state highway department.

Richard A. [illegible]

Reagan Treasury Department official Norman B. Ture
"We will do better as a society if we constrain the role of government."

Everyone has a story to tell. Catherine T. McDonough, a senior economist at Merrill Lynch in New York, had only just finished writing a report called "Our Neglected Infrastructure" when she headed up to her house in upstate New York. She found 30 feet of road gone: The bridge had collapsed, and she had to drive the long way around.

"The fact that we spend less—so what?" she said in an interview. "The story is that it's having an effect on growth and productivity." A worker tied up in traffic an extra 10 minutes a day over a 45-year career would lose almost a full working year. That's wasted time and wasted money—a tax, as it were, on private-sector efficiency, and one that gridlocked drivers are getting more conscious of paying.

Kemper's Hale, who does a lot of traveling, talks angrily about drift to "a southern European kind of political economy characterized by private affluence and public squalor." To the free-marketers' charge that government spending leaches vigor from the economy, Hale replied in an interview: "That's rubbish. The fact is, the private sector needs certain public goods to function, and by eroding the quality of public goods, you lower private productivity and you add to private-sector costs. Having an illiterate labor force, having an incompetent set of trade negotiators, having an air traffic control system that doesn't work and adds three hours to everyone's flight—all those things impede private-sector productivity."

People have been making that assertion for years. Now, however, they have empirical ammunition. It comes in the form of Aschauer's work, which has yet to be digested by the economics profession but has attracted considerable attention.

Aschauer found a close relationship between the productivity trend and the public-investment trend in this country. One of the great economic mysteries of our time has been why U.S. productivity growth has been in a serious slump ever since the early 1970s. Of the total productivity decline of 1.2 percentage points since 1970, Aschauer writes, a full point "can be attributed to the neglect of infrastructure."

The relationship, he found, also holds across countries. From 1973-85, "Japan has invested about 5.1 per cent of output in public facilities and achieved productivity growth of 3.3 per cent; at the other end of the spectrum, we find the United States with a low public investment of 0.3 per cent per year and low productivity growth of 0.6 per cent per annum." The other major industrial countries fell in between.

Indeed, at first blush the relationship seems almost too strong. "I found it stunning when I first saw it," Blinder said. "But I read the study, I looked at the data, and it holds up very well."

As to the argument that public investment will push out more-efficient private investment: Guess again, Aschauer says. First of all, while the amount of private

David Alan Aschauer of the Chicago Fed
New public investment will have a big payoff.

capital (machines, factories and so on) per worker has risen since 1971, public capital per worker has fallen. Additional public investment, having become relatively scarcer, may very well have a *higher* payoff than additional private investment, Aschauer says.

Second, he found that public infrastructure spending drains private investment only initially. After a few years, new roads, bridges, water systems and the like actually stimulate private investment, "ultimately inducing a cumulative rise in the private capital stock."

In a theoretical paper written last year, two economists at the University of Rochester, Marianne Baxter and Robert G. King, came up with similar results. "Our analysis lends support to the view that the productivity slowdown could in fact have been caused by the decline in public capital," they wrote.

In other words, higher government spending, if directed toward investment, is a positive-sum game: It adds to public wealth *and* private wealth. This is not exactly Reaganomics. It's anti-Reaganomics.

Most proponents of higher public investment—including Aschauer—extend their argument beyond just physical infrastructure. "Education should be included," Franco Modigliani, the Nobel prize-winning economist at the Massachusetts Institute of Technology, said in a recent interview. "Anything which is done now and produces its effect as a stream of future returns, I would consider an investment. And, clearly, education has this property."

Blinder includes child welfare—more for the Head Start program, for example—and aid to the underclass as crucial forms of human-capital investment. Hale adds the government's competence itself to the list of threadbare public goods: Inept bank supervision in this decade, he argues, has cost the country far more than pork barrel water projects ever did.

YES, BUT NO TAXES

As the list grows, conservatives get more nervous. "Investment" starts to sound more and more to them like a code word for a willy-nilly spending spree. The infrastructurists reply, Not if we're careful. And anyway, they say, the bigger risk right now is that we'll spend too little on public goods, not too much. "You've got to have something done in this area," Hale said. "You can't let deterioration continue indefinitely."

One of the interesting things going on here is that the "investment" battle cry has traditionally belonged to Republicans. And Republicans including President Bush, Treasury Secretary Nicholas F. Brady and budget director Richard G. Darman have all been preaching that the government and the private sector need to turn away from what Darman, in a widely noted speech in July, called now-now-ism: "a shorthand label for our collective shortsightedness, our obsession with the here and now, our reluctance adequately to address the future."

No less a conservative stalwart than Sen. Phil Gramm, R-Texas, rhapsodized in an interview early this year about the jobs and growth that would be created if the government were once again pouring resources into infrastructure, education and research "instead of just transferring money from one group to another."

That "instead of," though, is the rub. Conservatives are all for more government investment, but on one condition: that it be financed through what Gramm called a reordering of priorities, meaning reductions elsewhere in the federal budget. Higher deficits, no. Tax increases, no, no, a thousand times no.

The counterrevolutionaries are having none of it. Many of them would be willing to finance public investments by adding to the deficit and borrowing, if necessary. "I think that a higher budget deficit for investment is an acceptable solution," Modigliani said. If public investment will add to productivity and private investment, after all, then it's worth taking out a loan for.

But their first choice is clear, and they don't hesitate to suggest it: What money you can't get by cutting spending you should find by raising taxes. "I think the U.S. is undertaxed," Tyson said. Syracuse University economist John L. Palmer says that any ill effects from a prudent tax increase would be more than outweighed by the benefits from prudent increases in public investment. In fact, he says, some kinds of tax increases—a gasoline tax, for instance, or a cut in the home-mortgage deduction—would be good for the economy. "You win on both sides of the equation."

This, too, is hardly Reaganomics. It's more like Reaganomics in reverse.

The usual estimate puts the infrastructure renovation bill at about $40 billion-$50 billion a year for a decade or more. That's just for physical capital; human capital would drive the bill higher. Even assuming some offsetting spending cuts, this would require a big tax increase—not an enticing message to the public.

Still, some politicians think a tax increase is salable if they can convince the public that the money is being well spent. For instance, Rep. Robert E. Wise Jr., D-W.Va., is advocating a deficit reduction account. For five years, money from any tax increases would be funneled into the account; after that period, the interest from the fund would be dedicated to spending on physical capital and what Wise calls "infrastructure of the mind."

Public pressure, Wise says, would persuade Congress not to offset contributions to the fund with higher deficits in the rest of the budget, and the voters would get visible results in the form of poured concrete and student loans. "The voters are pretty smart," Wise said in a recent interview. "They just don't want to see their money wasted."

So far, to judge by the success of no-new-taxes-ever Republicans, the public isn't buying. Still, the American belief in public-goods spending as a way to improve productivity goes back to the days of Alexander Hamilton. "There are cycles, and we go back and forth," Palmer said. "These truths have been there for decades, and what we rediscover, and when, is always interesting."

In politics, as in the economics profession, periods dominated by laissez-faire tend to alternate with periods that favor activism: Coolidge and Hoover followed by Roosevelt; Eisenhower followed by the Great Society and its 1970s aftermath; Reaganomics followed by—what? The talk of public investment may be a clue.☐

Downsizing the Dream

While the rich get richer and the poor get poorer, the big long-term trend in the American economy is that those in the middle aren't moving up as fast as they expected to.

BY JONATHAN RAUCH

Confused about whether the economy has been delivering on the American dream? Did the Reagan Revolution really make the rich richer and the poor poorer? Your friends the Democrats and the Republicans will be glad to help you figure it out.

"Average real wages have been virtually stagnant," says a report from the Democratic majority of the congressional Joint Economic Committee. "The U.S. income distribution has become significantly more unequal.... The official Census Bureau statistics now show the greatest gap between rich and poor since the statistical series began in the late 1940s."

Oh, yeah? "Liberal Democrats are still rewriting history," says the House Republican Study Committee in a recent paper modestly titled "Family Income Success Story: What a Difference Republicans Make!" "Not only did income for those in the lowest income brackets improve—income for those in all income brackets improved as a result of 'Reaganomics,' the 'miracle economics.' "

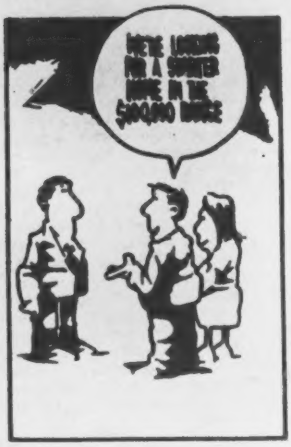
Bet you're sorry you asked.

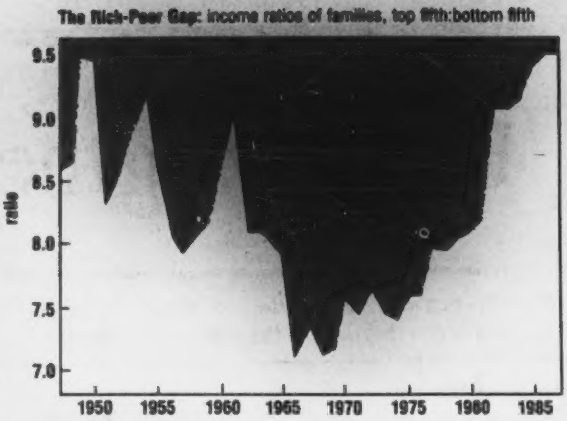
This is probably the most politically charged economic debate going. If ever there was a case that makes a person wish economists had fewer hands ("on the one hand...on the other hand...on the other hand"), here it is. So who's right? What has happened to living standards and income distribution? Is what happened under President Reagan different from what was happening before? And how much of whatever happened is to the blame or credit of government policies?

If someone tells you that the trend is obvious and the reason is evident, just laugh. The picture, alas, has multiple parts. What you see depends crucially on what you look at and what you compare it with.

But not to despair. A good bit is known these days about Americans' incomes, and the story turns out to be more interesting than the clichés that partisans hurl at each other. For instance:

- Income inequality has grown. But the trend is not new: It has been going on for 20 years or so. According to recently emerging research, however, something is different about this decade. "The shocker so far is in the recovery since 1983," Eugene Smolensky, an economist at the University of California (Berkeley), said in a recent interview. In business cycles before this decade, he said, income inequality typically increased during recessions but narrowed or at least stopped growing during the succeeding expansions. This time, Smolensky said, to economists' surprise, "that has not happened, and that's why we're all [working] on the computer."
- Among men, a major reason for growing inequality of incomes seems to be the rapidly rising demand for education and experience. "There's been an explosion in the gap between people with more or less education," economist Gary Burtless of the Brookings Institution said. "The premium to being a more-skilled, better-educated worker has


WE'RE LOOKING FOR A STARTER HOME IN THE $100,000 RANGE


The Rich-Poor Gap: income ratios of families, top fifth:bottom fifth

SOURCE: Census Bureau

gone up." The result has been a severe squeeze on young men (who are less experienced) and men with no education beyond high school.

- The middle class is not disappearing. Yes, the middle-class share of the population is shrinking, by a number of measures. The change is small, though, and due more to upward movement in the middle-income brackets than downward movement. But there's a catch: The families at the bottom are not being pulled along. Since 1979, these families, many of which are headed by single women, have lost ground not just in relative terms but absolutely.
- Major demographic and social changes lie behind the income-distribution story. One of the most ominous developments is that poor households are much likelier than in the past to be headed by a working-age adult with children, rather than a retiree. In the early 1970s, one in nine children lived in a family whose real income was below $10,000 (in 1987 dollars). Today, the proportion is one in six.
- The dominant economic change of our times has little to do with the distribution of incomes. It is that average income growth slowed dramatically in 1973 and has not regained its old speed. Americans are better off in 1989 than they were in 1973—but they are not as well off, by a wide margin, as they had expected they'd be. Reaganomics neither caused nor cured the sharp slowdown.

What follows is a guide for the perplexed—an attempt to sort out what is and isn't known about Americans' incomes and living standards.

THE POOR GET POORER

The question of what's happening to living standards and income distribution is really three questions. First: Has the trend been toward less-equal income distribution? Second: What kind of people can be found *within* each income class, and how has the mix changed? Third, and most important: Setting aside how Americans are doing relative to each other, what has happened to average growth in living standards?

To take the first question first, the answer is clearly yes: The gap between rich and poor has gotten wider. Consider one of the simplest measures of income inequality, the ratio of income held by the top fifth of all families to income held by the lowest fifth. The chart on this page shows that inequality has risen through the 1980s—but also that it has been rising since the late '60s.

In 1969, the chart shows, an average family in the top quintile had $7.25 in income for every $1 of income held by an average family in the bottom quintile; by 1987, the ratio was $9.50 to $1. Note that inequality shoots up at the start of this decade, no doubt in large measure because of the so-called mini-recession in 1980 and the severe recession in 1981-82.

The top-to-bottom ratio is on the crude side, but it is consistent with what other measures show. For instance, the Republican Study Committee paper boasts that incomes have grown for both rich and poor since the bottom of the Reagan recession. That isn't much to boast about, because in the transition from bad times to good times, things normally get better. But the paper also shows that the incomes of the rich grew faster.

So is the middle-class disappearing, being replaced by a polarized society? No. The table below, from Census Bureau data, shows the shares of the country's income going to the highest fifth, the lowest fifth and the middle three-fifths of the family population for selected years since 1949.

	Income share of:		
	Bottom 5th	**Middle**	**Top 5th**
1949	4.5%	52.7%	42.7%
1959	4.9	54.0	41.1
1969	5.6	53.8	40.6
1979	5.2	53.2	41.7
1987	4.6	51.8	43.7

Despite the trend toward more inequality, little change has gone on in the basic American class structure. The bulk of income still goes to families in the middle. (These figures can be deceptive, though: Small percentage changes in national income translate into substantial sums in dollars. Lawrence R. Mishel of the Economic Policy Institute in Washington calculates that if the average family in the bottom quintile had not seen its share of the pie shrink after 1979, its income would have been about $1,100 higher in 1987 than it actually was.)

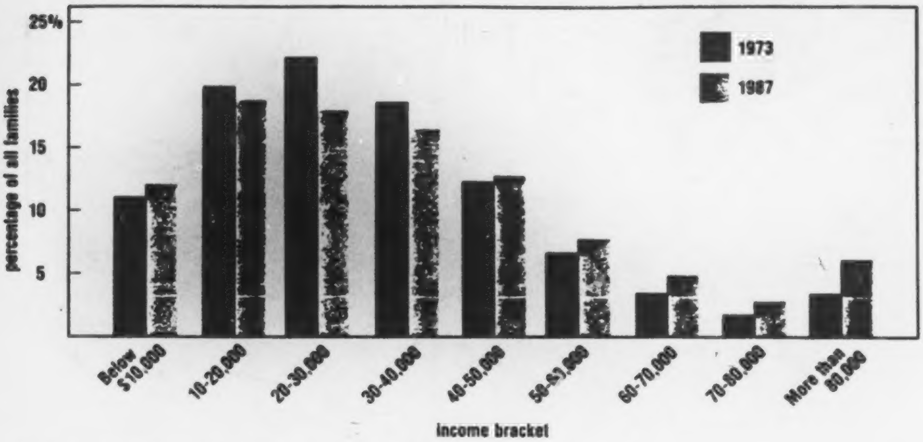
Rising inequality seems to have more to do with upward movement than downward movement. A 1988 study by Michael W. Horrigan and Steven E. Haugen of the Labor Department found that "the majority of the decline in the middle is offset by an increase in the upper class."

That was the good news. The bad news: "In terms of its share of aggregate income," Horrigan and Haugen wrote, "there has been a growing disparity between the lower class and the remainder of the distribution."

Consider the chart on page 2040, which shows the distribution of American families by income bracket (adjusted for inflation) in 1973 and 1987. The percentage of families in the lower brackets declined, while the percentage in higher brackets rose. But there was one exception to the pattern. The proportion of families in the very bottom bracket actually grew.

This is consistent with the persistence of high poverty rates in the current economic expansion. Recessions clobber the poor and near-poor, and low-income people were hit hard by the two-recession period of 1980-82. Throughout the 1980s, however, the poverty rate has been stuck well above its level in the 1970s, despite a vigorous recovery. Here is the Census Bureau's listing of what percentage of Americans were at or below the poverty line from 1976-87:

The Middle-Class Spread: distribution of families by income bracket, 1973 and 1987 (in 1987 dollars)



SOURCES: Census Bureau; Frank Levy, University of Maryland

1976	11.8%	1982	15.0%
1977	11.6	1983	15.2
1978	11.4	1984	14.4
1979	11.7	1985	14.0
1980	13.0	1986	13.6
1981	14.0	1987	13.5

Moreover, the average poor person fell further below the poverty line from the late 1970s to 1983, and the resumption of national economic growth brought no relief. The following Census Bureau table tells that story: It shows the percentage of all poor people whose incomes were below 50 per cent of the poverty line in each year.

1976	28.1%	1982	37.2%
1977	30.2	1983	38.5
1978	31.5	1984	37.9
1979	32.9	1985	37.4
1980	33.5	1986	39.2
1981	35.2	1987	39.2

The failure of the current recovery to lift more of the boats at the bottom, and to undo more of the damage wreaked by the recession, stands as one of the major puzzles and disappointments of the 1980s.

Burtless of the Brookings Institution points to a related puzzle. "It has universally been found in the family income distribution of the United States that inequality rises in a recession and declines in a recovery," he said. "The mystery of the 1980s has been that for neither family income nor male earnings has there been a decline in inequality. It has risen even during this long recovery."

An important question is whether inequality will continue to increase—and if so, whether a political backlash will eventually form. "If this is not just an unusual cycle, then this is the kind of development that destabilizes democracy," Smolensky said. "The question is, how big does it have to get before Jesse Jackson can make it work for him?"

WINNERS AND LOSERS

What's behind the 20-year drift toward less-equal income distribution? That brings us to the second line of inquiry, which looks at who the winners and losers have been.

A good way to start is to look at earnings, which tell you what happens, not to families' incomes (which depend on the number of people in the family who work), but to the incomes of individuals who work. Here, it turns out that the fates of men and women have been very different.

Among men, earnings inequality for every age group has been rising for at least 20 years, with a particularly large leap around (you guessed it) 1980-82. Worse still, among men, the growing inequality reflected not just improvement on the high end but also an actual loss of earnings (in constant dollars) on the low end.

Among women, however, earnings inequality has dropped, and earnings have gone up, in real terms, across the board. In families, the favorable trends for women, more of whom went to work, ameliorated the negative trend for men.

Just as varied have been the fates of people of different ages and educational attainment. In fact, the growing importance of education has come roaring out of the data in recent years. "There has been a kind of sorting by education that's gone on," said economist Marvin H. Kosters of the American Enterprise Institute for Public Policy Research. "The wage premium for more schooling has gone up a lot."

Little doubt remains that where income and living standards are concerned, this is one of the major developments of our time. James P. Smith, a senior labor economist at the RAND Corp. in Santa Monica, Calif., said: "If you measure the income returns to education, these are the biggest returns that we've measured over the last 40 or 50 years. Something has happened in the labor market that has made the value of skill very high."

Skill tends to increase with experience in the labor market, other things being equal. Perhaps for that reason, and also because of the glut of baby boomers, the relative value of age also has climbed.

The box, "The College Difference" *(see p. 2043)*, tells that story starkly. It shows that the earnings of men with only high school degrees, and particularly of *young* men with only high school degrees, have been under severe pressure. These young men have actually seen their average real earnings drop since 1979. Among women, by contrast, the picture looks more as it did for men before 1973: Everyone gained, but those with college degrees gained more. Age was less of a factor.

What's going on here? It's hard to say. "People are just now getting into this," Kosters said. "It's not going to be easy to solve."

The most common view is that the economy simply has less to offer less skilled men. For one thing, those men are competing against similarly skilled foreigners. For another, manufacturing no longer offers the comfortable foothold it once did for the less skilled. Economist Frank Levy of the University of Maryland argued in a recent paper, "Younger men were losing manufacturing jobs not only because of the slow growth of manufacturing employment but because the composition of that employment was shifting toward more-educated workers." Younger, less skilled men wound up in jobs that paid less.

Controversy has raged in recent years over the assertion that job-creation shifted under Reagan to low-wage jobs. That debate isn't settled, but it is starting to seem beside the point. The real problem, Burtless says, is not a rise in the number of low-wage jobs but a decline in demand for less skilled workers—in other words, not too many lousy jobs, but too many unwanted workers.

The demand for education and sophistication in the work force very likely will continue to rise, eroding the position of men without college or experience. Reducing the number of such men, through education, thus must be a key to narrowing the wage gap.

CHILDREN IN POVERTY

Another gap has widened. "Inequality grew much more among families with children than among childless families," Congressional Budget Office (CBO) director Robert D. Reischauer testified recently at congressional hearings.

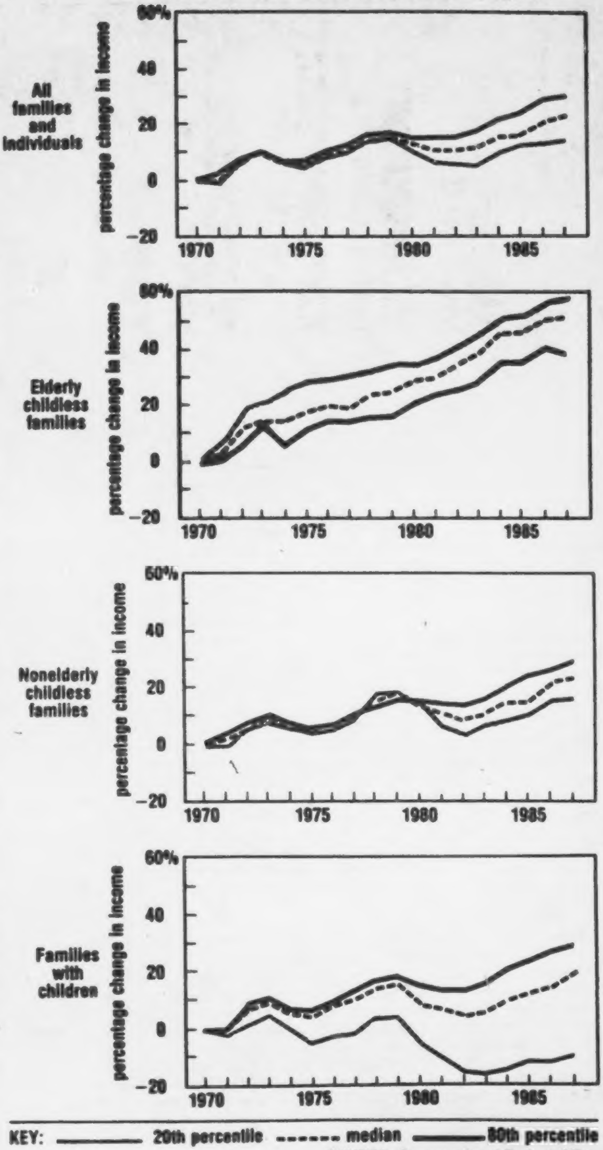
A series of charts on this page makes the pattern evident.

For 1970-87, these charts, from CBO data, show the income trends (indexed to 1970 and adjusted for inflation and family size) of families in the 20th income percentile (those who were poorer than 80 per cent of families), families in the 80th percentile (richer than 80 per cent) and families at the median (dead center).

These charts illustrate not only the trend in inequality (the more the upper and lower lines spread apart, the more inequality) but also the absolute growth or decline of income for each kind of family since 1970.

For all families and individuals, incomes at the median rose 20 per cent; at

Who's Up, Who's Down: trends in real family income for families at low end, median and high end



SOURCE: Congressional Budget Office

the lowest percentile within that group, incomes rose 10 per cent. For elderly families without children, incomes grew rapidly for everybody. For nonelderly families without children, the trend was much the same as for all families and individuals: a modest rise in incomes coupled with an early-'80s spike in inequality.

Now, for a shocker, look at families with children. At the top, incomes rose almost 30 per cent; at the median, almost 20 per cent. But for the lower percentile, the bottom fell out: Incomes fell 10 per cent from 1970-87.

Why? Single-parent families. According to the Census Bureau, the proportion of all households maintained by single parents rose from about 13 per cent in 1968 to 20 per cent in 1986. And the share of children living in female-headed households has shot up from 10 per cent in 1973 to 20 per cent today.

Some of those households are headed by divorced people in sound financial shape, drawing both wages and support payments. But the number of low-income single-parent households has increased, and their per-family income has fallen. The result: a big group of families stuck at the bottom.

Add one other factor: Younger people have been under particular economic stress. Census Bureau figures on families headed by householders under 35 show the proportion of such families in three income classes: high (above 125 per cent of median family income), medium and low (below 75 per cent of median income).

	1956	1986
High income	28.5%	25.2%
Medium income	42.6	29.6
Low income	28.8	45.2

The figures show a large downward movement for young families—which are, of course, the likeliest to have young children.

Put the pieces together and you get lots more children in poverty and in near-poverty. Last year, in the sixth year of an economic expansion, 20 per cent of American children were poor. "I think we have a terrible problem of too many children being raised in family situations where incomes are low," Kosters said. Children in low-income families have less exposure to work, training and preparation for life. They may find it all the harder to break out of poverty as adults, especially when the economy has less to offer workers who are short on education.

UP, JUST BARELY

Underpinning everything else is the most important trend of them all. To see it, you have to turn to measures of average well-being.

Look again at the chart on page 2040, which shows the percentage of families in each of nine income brackets in 1973 and in 1987, after adjusting for inflation. The remarkable thing is what the chart does not show. Over 14 years, you would hope for a general movement toward the higher-income end of the scale. The whole tent, so to speak, should move uphill. And, indeed, there was some movement of this kind. But not very much.

Consider some more numbers. According to Census Bureau data, in 1959 the proportion of families whose incomes were in the $15,000-$25,000 range (in 1987 dollars) was 31.4 per cent. Fourteen years later, in 1973, that proportion had fallen dramatically, to 19.4 per cent. Families were advancing rapidly into higher income-brackets.

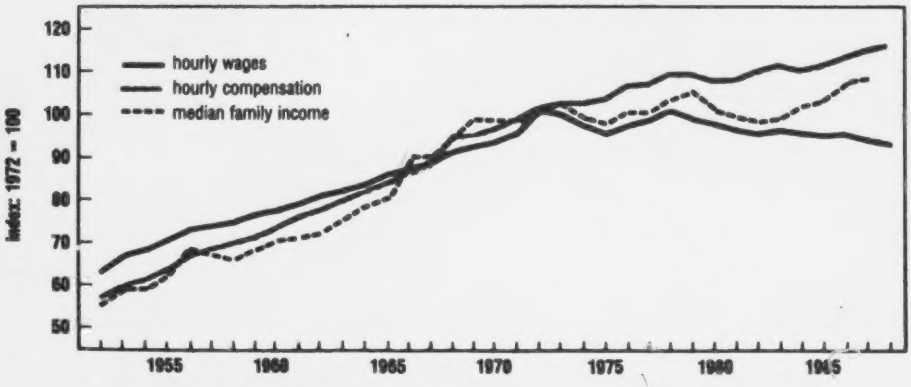
But over the following 14-year period, the proportion in this bracket barely budged. It fell only a smidgen, to 18.7 per cent. People were moving up, but at a crawl. That's the big story.

What happened? The rate of growth of productivity in the U.S. economy (and in the economies of other major industrial nations) slowed sharply in the early 1970s. Take, for instance, three 13-year periods. Output per worker-hour grew 50 per cent from 1947-60, and 42 per cent from 1960-73; but it grew only 12 per cent from 1973-86.

Productivity growth is the source of rising standards of living. Slower improvement in productivity means slower improvement in material well-being. And slower improvement is what the country has had.

A certain amount of partisan haggling goes on over whether what has happened

What Americans Earn: trends in hourly wages and compensation (wages plus benefits) and median family income



NOTE: Data adjusted with CPI-U-X1 consumer price index

SOURCES: Census Bureau; Labor Department; American Enterprise Institute for Public Policy Research should be called a slowdown or stagnation, mainly because different measures tell slightly different stories. The chart on page 2042 shows what are probably the three best measures: hourly wages, hourly compensation and median family income, all adjusted for inflation.

Hourly earnings clearly stagnated. But more of workers' pay now comes in the form of fringe benefits rather than cash. Fringes are included in hourly compensation, which rose over the period—but at a much slower rate than before 1973.

Reflecting what happened to earnings and compensation in the early 1970s, median family income started struggling; it was only 6 per cent higher in 1987 than it was in 1973. If it had continued growing at its pre-1973 rate, median income would instead have risen by almost 50 per cent from 1973-87—a difference that would have been worth about $12,000 for the median-income family.

Republicans point to the creeping income growth of the '70s and condemn President Carter. Democrats point to the creeping income growth of the '80s (median family income didn't top 1979's level until 1986) and condemn Reagan. As the chart on the preceding page shows, both assertions are pretty silly. The near-stagnation in income growth wasn't caused by government and has changed little since 1973.

Are living standards higher today than when the White House went Republican in 1981, or than they were in 1973? The answer is yes, especially when you consider the ways in which we're materially better off (better medicines, home VCRs and so on) that the income statistics don't pick up.

Have Americans been enjoying the kind of rising prosperity that they became accustomed to for most of the postwar period? Not by a long shot.

The slowdown isn't tragic; things are still improving. But slower income growth has far-reaching ramifications. When incomes rise rapidly, the winners win and the losers also win, although not as much. When incomes rise slowly or not at all, the winners win but the losers lose.

Moreover, although the middle class is not shrinking much as a share of the population, Levy argues that the rapid improvements in well-being that families used to associate with "middle-classness" have become much more elusive. Americans have taken a body blow to their expectations.

President Bush recently announced ambitious goals for space: a settlement on the moon and a trip to Mars. Twenty-five years ago, such dreams were limited more by technology than by finance. For the U.S. government, as for everyone else, rapid growth in incomes could be counted upon to bring the unaffordable soon within reach.

In 1989, as Bush says, we have more will than wallet. A moon base sounds technologically feasible but financially dubious. The change in productivity and income growth over the past 15 years explains why.

Unfortunately, the causes of the slowdown in productivity remain mysterious. No one knows how to bring back the glory days.

From all of this messy data, a few themes emerge. The class structure remains broadly stable. Inequality has increased, but that trend is not new and has not alarmed the public.

This does not mean that everything is hunky-dory. Several groups have lost ground. Men without college educations have been in trouble for 15 years. Young householders have had to struggle. People at the bottom of the income scale are likelier than before to have children—and many of them are stuck down there.

Government policies played a role in all of these changes. In the average state, the combined value (adjusted for inflation) of aid to families with dependent children and food stamps fell by 20 per cent from 1976-88. That has hurt the poor. So has the fact that from 1980-90, according to the CBO, effective tax rates will have gone up for the poorest fifth of the population and down for the richest fifth, primarily because of the shift in the federal government's tax mix toward greater reliance on social security and medicare taxes, which are regressive.

Such policies, however, can't explain more than part of what's happened. Mainly, the Republican and Democratic explainers will be disappointed: There isn't a whole lot of political ammunition in the numbers. Most of the changes straddle Administrations and are driven by forces that are deeper and more powerful than votes in Congress. The real answers are going to be harder to find than the political ones. □

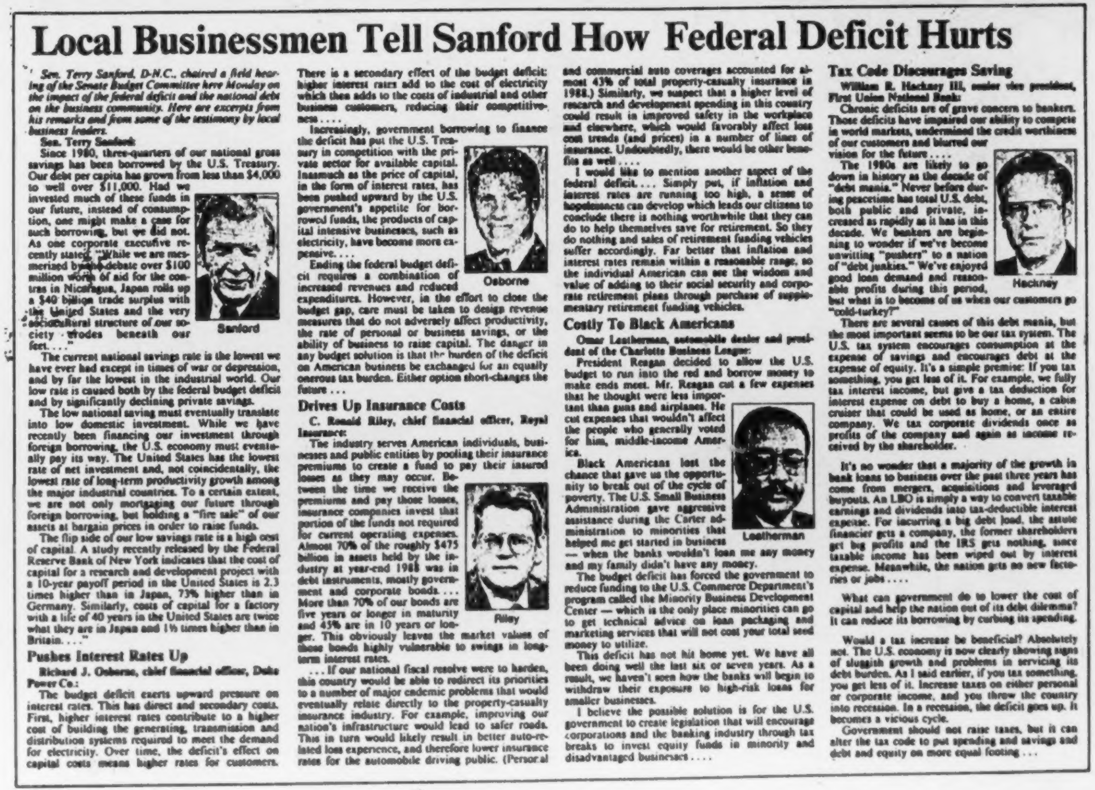
The College Difference

This table shows how male and female full-time workers—sorted by age and maximum educational attainment—were faring in two years of strong economic growth. The message is clear: The gap between workers with and without college widened sharply, and young men without college degrees had a big problem.

The figures show changes in real average earnings, in 1987 dollars.

	Average earnings		Per cent change
	1979	1986	1979-86
Men, 25-34			
4 years H.S.	$24,701	$22,226	−10%
4 years college	29,062	31,745	+9
Men, 35-44			
4 years H.S.	28,992	27,738	−4
4 years college	40,555	40,194	−1
Men, 45-54			
4 years H.S.	29,773	29,520	−1
4 years college	43,565	45,973	+6
Women, 25-34			
4 years H.S.	15,516	15,700	+1
4 years college	20,116	23,333	+16
Women, 35-44			
4 years H.S.	15,963	17,373	+9
4 years college	21,391	26,214	+23
Women, 45-54			
4 years H.S.	16,45[illegible]	17,400	+6
4 years college	21,549	25,001	+16

SOURCE: Tabulations of Census Bureau data by Frank Levy, University of Maryland



Local Businessmen Tell Sanford How Federal Deficit Hurts

Sen. Terry Sanford, D-N.C., chaired a field hearing of the Senate Budget Committee here Monday on the impact of the federal deficit and the national debt on the business community. Here are excerpts from his remarks and from some of the testimony by local business leaders.

Sen. Terry Sanford:

Since 1980, three-quarters of our national gross savings has been borrowed by the U.S. Treasury. Our debt per capita has grown from less than $4,000 to well over $11,000. Had we invested much of these funds in our future, instead of consumption, one might make a case for such borrowing, but we did not. As one corporate executive recently stated, "While we are mesmerized by the debate over $100 million worth of aid for the contras in Nicaragua, Japan rolls up a $40 billion trade surplus with the United States and the very sociocultural structure of our society erodes beneath our feet. . . ."

Sanford

The current national savings rate is the lowest we have ever had except in times of war or depression, and by far the lowest in the industrial world. Our low rate is caused both by the federal budget deficit and by significantly declining private savings.

The low national saving must eventually translate into low domestic investment. While we have recently been financing our investment through foreign borrowing, the U.S. economy must eventually pay its way. The United States has the lowest rate of net investment and, not coincidentally, the lowest rate of long-term productivity growth among the major industrial countries. To a certain extent, we are not only mortgaging our future through foreign borrowing, but holding a "fire sale" of our assets at bargain prices in order to raise funds.

The flip side of our low savings rate is a high cost of capital. A study recently released by the Federal Reserve Bank of New York indicates that the cost of capital for a research and development project with a 10-year payoff period in the United States is 2.3 times higher than in Japan, 73% higher than in Germany. Similarly, costs of capital for a factory with a life of 40 years in the United States are twice what they are in Japan and 1½ times higher than in Britain. . . ."

Pushes Interest Rates Up

Richard J. Osborne, chief financial officer, Duke Power Co.:

The budget deficit exerts upward pressure on interest rates. This has direct and secondary costs. First, higher interest rates contribute to a higher cost of building the generating, transmission and distribution systems required to meet the demand for electricity. Over time, the deficit's effect on capital costs means higher rates for customers. There is a secondary effect of the budget deficit: higher interest rates add to the cost of electricity which then adds to the costs of industrial and other business customers, reducing their competitiveness . . . .

Increasingly, government borrowing to finance the deficit has put the U.S. Treasury in competition with the private sector for available capital. Inasmuch as the price of capital, in the form of interest rates, has been pushed upward by the U.S. government's appetite for borrowed funds, the products of capital intensive businesses, such as electricity, have become more expensive. . . .

Osborne

Ending the federal budget deficit requires a combination of increased revenues and reduced expenditures. However, in the effort to close the budget gap, care must be taken to design revenue measures that do not adversely affect productivity, the rate of personal or business savings, or the ability of business to raise capital. The danger in any budget solution is that the burden of the deficit on American business be exchanged for an equally onerous tax burden. Either option short-changes the future . . .

Drives Up Insurance Costs

C. Ronald Riley, chief financial officer, Royal Insurance:

The industry serves American individuals, businesses and public entities by pooling their insurance premiums to create a fund to pay their insured losses as they may occur. Between the time we receive the premiums and pay those losses, insurance companies invest that portion of the funds not required for current operating expenses. Almost 70% of the roughly $475 billion in assets held by the industry at year-end 1988 was in debt instruments, mostly government and corporate bonds. . . . More than 70% of our bonds are five years or longer in maturity and 45% are in 10 years or longer. This obviously leaves the market values of those bonds highly vulnerable to swings in long-term interest rates.

Riley

. . . If our national fiscal resolve were to harden, this country would be able to redirect its priorities to a number of major endemic problems that would eventually relate directly to the property-casualty insurance industry. For example, improving our nation's infrastructure would lead to safer roads. This in turn would likely result in better auto-related loss experience, and therefore lower insurance rates for the automobile driving public. (Personal and commercial auto coverages accounted for almost 43% of total property-casualty insurance in 1988.) Similarly, we suspect that a higher level of research and development spending in this country could result in improved safety in the workplace and elsewhere, which would favorably affect loss cost trends (and prices) in a number of lines of insurance. Undoubtedly, there would be other benefits as well . . . .

I would like to mention another aspect of the federal deficit. . . . Simply put, if inflation and interest rates are running too high, a sense of hopelessness can develop which leads our citizens to conclude there is nothing worthwhile that they can do to help themselves save for retirement. So they do nothing and sales of retirement funding vehicles suffer accordingly. Far better that inflation and interest rates remain within a reasonable range, so the individual American can see the wisdom and value of adding to their social security and corporate retirement plans through purchase of supplementary retirement funding vehicles.

Costly To Black Americans

Omar Leatherman, automobile dealer and president of the Charlotte Business League:

President Reagan decided to allow the U.S. budget to run into the red and borrow money to make ends meet. Mr. Reagan cut a few expenses that he thought were less important than guns and airplanes. He cut expenses that wouldn't affect the people who generally voted for him, middle-income America.

Black Americans lost the chance that gave us the opportunity to break out of the cycle of poverty. The U.S. Small Business Administration gave aggressive assistance during the Carter administration to minorities that helped me get started in business — when the banks wouldn't loan me any money and my family didn't have any money.

Leatherman

The budget deficit has forced the government to reduce funding to the U.S. Commerce Department's program called the Minority Business Development Center — which is the only place minorities can go to get technical advice on loan packaging and marketing services that will not cost your total seed money to utilize.

This deficit has not hit home yet. We have all been doing well the last six or seven years. As a result, we haven't seen how the banks will begin to withdraw their exposure to high-risk loans for smaller businesses.

I believe the possible solution is for the U.S. government to create legislation that will encourage corporations and the banking industry through tax breaks to invest equity funds in minority and disadvantaged businesses . . . .

Tax Code Discourages Saving

William R. Hackney III, senior vice president, First Union National Bank:

Chronic deficits are of grave concern to bankers. Those deficits have impaired our ability to compete in world markets, undermined the credit worthiness of our customers and blurred our vision for the future . . . .

The 1980s are likely to go down in history as the decade of "debt mania." Never before during peacetime has total U.S. debt, both public and private, increased as rapidly as it has in this decade. We bankers are beginning to wonder if we've become unwilling "pushers" to a nation of "debt junkies." We've enjoyed good loan demand and reasonable profits during this period, but what is to become of us when our customers go "cold-turkey?"

Hackney

There are several causes of this debt mania, but the most important seems to be our tax system. The U.S. tax system encourages consumption at the expense of savings and encourages debt at the expense of equity. It's a simple premise: If you tax something, you get less of it. For example, we fully tax interest income, but give a tax deduction for interest expense on debt to buy a home, a cabin cruiser that could be used as home, or an entire company. We tax corporate dividends once as profits of the company and again as income received by the shareholder.

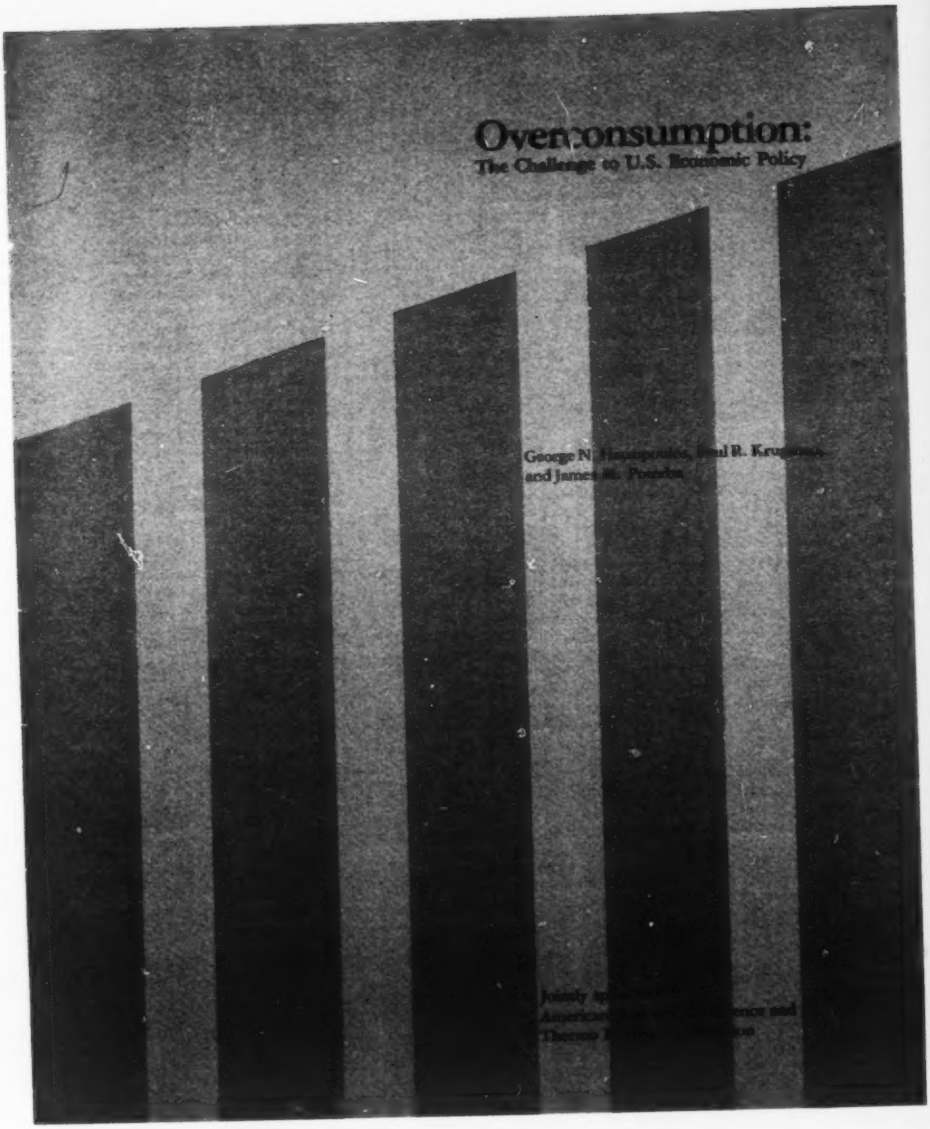
It's no wonder that a majority of the growth in bank loans to business over the past three years has come from mergers, acquisitions and leveraged buyouts. An LBO is simply a way to convert taxable earnings and dividends into tax-deductible interest expense. For incurring a big debt load, the astute financier gets a company, the former shareholders get big profits and the IRS gets nothing, since taxable income has been wiped out by interest expense. Meanwhile, the nation gets no new factories or jobs . . . .

What can government do to lower the cost of capital and help the nation out of its debt dilemma? It can reduce its borrowing by curbing its spending.

Would a tax increase be beneficial? Absolutely not. The U.S. economy is now clearly showing signs of sluggish growth and problems in servicing its debt burden. As I said earlier, if you tax something, you get less of it. Increase taxes on either personal or corporate income, and you throw the country into recession. In a recession, the deficit goes up. It becomes a vicious cycle.

Government should not raise taxes, but it can alter the tax code to put spending and savings and debt and equity on more equal footing . . .

Charlotte Observer
Nov. 8, 1989



Overconsumption:
The Challenge to U.S. Economic Policy

George N. Hatsopoulos, Paul R. Krugman,
and James M. Poterba

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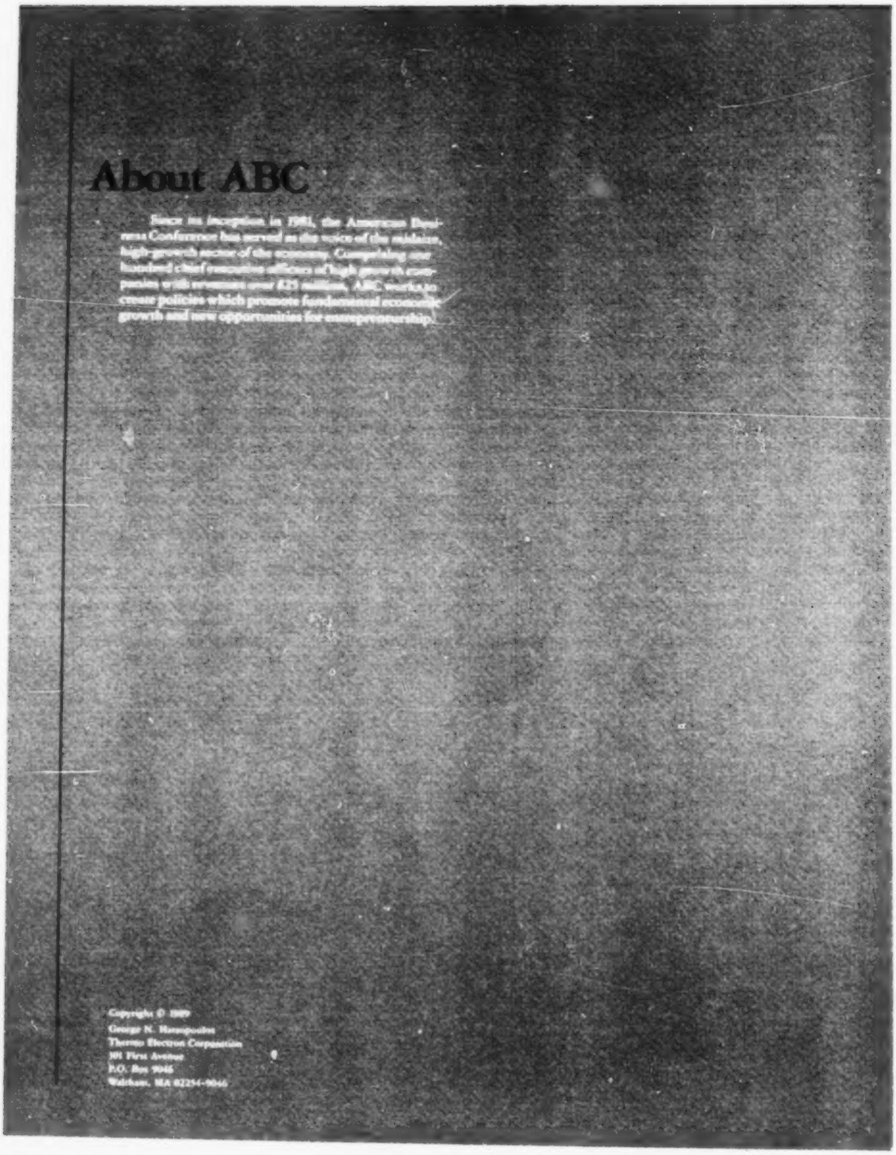

About ABC

Since its inception in 1981, the American Business Conference has served as the voice of the midsize, high-growth sector of the economy. Comprising one hundred chief executive officers of high growth companies with revenues over $25 million, ABC works to create policies which promote fundamental economic growth and new opportunities for entrepreneurship.

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We are particularly indebeed to the members of the American Business Conference, and especially to Barry Rogstad, for the interest in the subject of national saving. The impetus emerged from discussions of ABC chief executives during task force meetings on economic policy.

Finally, we wish to recognize the tireless and extraordinary staff support provided by Linda Nordberg of Thermo Electron Corporation.

Foreword

Overconsumption: The Challenge to U.S. Economic Policy is one in a series of working papers sponsored by the American Business Conference. These working papers advance innovative ideas on issues relating to economic growth and capital formation. Deliberately provocative, they are intended to spark discussion and debate regarding how best the United States can stimulate new investment, job creation, and greater international competitiveness.

George Hatsopoulos, the lead author of this working paper, is a founding member of the American Business Conference, chairman and president of Thermo Electron Corporation, and the author of numerous economic monographs including an ABC sponsored ground-breaking study of comparative capital costs. In *Overconsumption: The Challenge to U.S. Economic Policy*, Dr. Hatsopoulos and his collaborators, Professor Paul Krugman and Professor James Poterba of the Massachusetts Institute of Technology, examine one of the most troubling economic phenomena of recent years—the low level of savings in the American economy. They analyze the sources and consequences of the problem and suggest some highly intriguing policy options to address it.

Their paper could not be more timely. Our anemic national savings threatens the nation's capacity to generate sufficient investment necessary to remain competitive in a global market. Indeed, the members of the American Business Conference— the chief executives of one hundred fast-growing, midsize businesses—ranked the low level of national savings, which includes government dissaving in the form of chronic federal budget deficits, as the single greatest economic problem confronting the country.

We would like to thank Dr. Hatsopoulos and his co-authors for their efforts. Their paper has already ignited a lively exchange among ABC members and will, we believe, similarly enrich the ongoing dialogue on fiscal issues within the economic policy-making community at large.

Arthur Levitt Jr., Chairman
Barry K. Rogstad, President

American Business Conference
New York and Washington, March 1989

Executive Summary

Overconsumption: The Challenge to U. S. Economic Policy

For the first time in America's history, the prosperity of its people is supported not by its production, but by the selling of assets that took many generations to create. The federal budget deficit is widely perceived as the central problem. The deficit is, however, only a contributing factor to a more fundamental problem: excessive consumption relative to output.

The United States is currently consuming a higher fraction of its national income than any other industrialized nation and a far higher fraction than in any comparable period of our history. Our high consumption rate (or equivalently, our low saving rate) is the single most important cause of both unprecedented trade deficits and inadequate domestic investment during the mid-1980s. Restoring national saving at least to the level of the 1970s should be the central goal of national economic policy.

The Costs of Overconsumption

High current consumption poses many threats to the U.S. economy. One is that our dependence on foreign capital and the growing overhang of debt expose the United States to short-run risks. More fundamentally, our high current consumption mortgages our future. Increasingly, the U.S. economy has been attracting the capital it needs by selling our assets cheaply. Foreign investors have been induced to buy up U.S. land, corporations, and securities by a low dollar that makes these assets inexpensive in foreign currency. This process cannot continue indefinitely; ultimately, inadequate national saving must translate into reduced investment. During the late 1980s, the United States had the lowest rate of net investment, as well as the lowest rate of productivity growth, of major industrial countries. The principal long-run cost of overconsumption is a gradual slowing down of the growth of living standards.

The Causes of Overconsumption

The sharp fall in national saving during the 1980s has many sources. The most popular villain – the federal budget deficit – accounts for less than half of the decrease. Reduced private saving bears more of the responsibility. Together these factors account for a decline in national saving from 8 percent of national income in the 1970s, to barely 2 percent of national income today.

Our investigation suggests that four basic factors have played a central role in the decline in saving, or equivalently, the growth of consumption:

- Growth of the federal deficit,
- Changes in the demographic structure of the U.S. population,
- Increased personal wealth, and
- Increased cash payout from firms to investors.

The last factor reflects both the substitution of high-interest- yield debt for low-dividend-yield equity in corporate capital structures, as well as the forced realization of capital gains resulting from debt-financed takeovers and leveraged buy outs.

Solutions to Overconsumption

Slowing the growth of consumption relative to the growth of national income requires prompt action on several fronts:

- *Reducing the Federal Deficit.* Lowering government consumption is the most direct method of attacking the overconsumption problem. Raising taxes, thereby lowering private consumption, will also increase national saving although the net effect is less certain. The differential effect of various tax changes on private saving, and thus national saving, should be recognized.
- *Improving Incentives for Private Saving.* Introducing a national campaign to promote saving and issuing "Supersaver" bonds to encourage households to save for the long-run could bolster the falling private saving rate.
- *Eliminating Incentives for Corporate Leverage.* Equal tax treatment of debt and equity would slow the growth of corporate leverage and thereby reduce the trend toward higher cash payout to shareholders, and bondholders.

Overconsumption:
The Challenge to U.S. Economic Policy

Introduction

The single greatest problem of the U.S. economy in the late 1980s is its extremely low level of national saving. The current low national saving rate – the lowest rate we have ever had except in times of war or depression, less than half the rate in the severe recession year of 1982, and by far the lowest rate in the industrial world – lies at the root of both our unprecedented trade deficits and our inadequate level of domestic investment, which in turn is a major cause of low U.S. productivity growth.

Low U.S. national saving is usually blamed primarily on the federal budget deficit. *While the budget deficit was an important contributory factor to the decline in national saving in the 1980s, it was far from the whole story: declining private saving was more important*. Eliminating the budget deficit, therefore, will not eliminate the national saving problem.

From 1985 to 1987 the federal deficit declined substantially. Yet private saving declined even more and, as a result, national saving declined. It therefore appears that there are important factors depressing national saving other than the budget deficit. In other words, a commitment by the United States to eliminate the federal deficit, important as this goal is, is not sufficient. *We need a national policy that focuses on the real bottom line: restoring national saving to at least the level of ten years ago*.

The purpose of this paper is to review the causes and consequences of the low U.S. national saving rate and to propose some policy changes that could help to reverse its alarming decline.

The Bottom Line

Saving for the nation has the same definition as saving for an individual: the excess of income over expenditure for current consumption. For the nation as a whole, saving is defined as the difference between national income and national consumption. National income, in turn, is simply net national product – the value of goods and services produced in the economy, less depreciation of the national capital stock – while national consumption is the sum of private consumption and consumption by the public sector.[1]

Table I shows the relation between national saving, net domestic investment, and net U.S. investment abroad (the current account balance) in the period 1985 to 1987 compared to the period 1970 to 1979, all expressed as a percent of national income.

During the 1970s the United States saved on average 7.9 percent of its national income. Of that, 7.6 percent was invested domestically and 0.3 percent abroad. In the mid-1980s (1985 to 1987) the United States experienced a dramatic decline of its national saving to an average of 2.1 percent of national income. Such a low rate of national saving is unprecedented for periods of economic expansion, not only for the United States but for all industrialized nations.

The decline in national saving has forced the United States to borrow massively from foreigners ($417 billion from 1985 to 1987) and to reduce net domestic investment by 2 percentage points relative to the 1970s, which included two recessions.[2] From 1985 to 1987, 60 percent of net national investment was financed by borrowing abroad.

Table I
Saving and Investment
(percent of national income)

	1985–1987	1970–1979	Difference
Net National Saving	2.1	7.9	(5.8)
Equals: Net Domestic Investment	5.7	7.6	(1.9)
Plus: Net U.S. Investment Abroad	(3.6)	0.3	(3.9)

---

[1] Strictly speaking, national income as usually defined differs slightly from net national product because of an adjustment for indirect taxes on business. This technical distinction is of no importance to our discussion and in what follows, we will use the concepts of national income and net national product interchangeably.

There is another measurement issue that we should note. Both national income and the saving rate are somewhat incorrectly measured because of failure to take account of the fact that part of government expenditure is actually investment. For this reason national saving is typically somewhat higher than measured; while national income is actually somewhat lower because of depreciation on government capital. However, the decline in national saving is almost certainly larger than measured because of cutbacks in government investment.

[2] A rate of national saving that is inadequate to support net domestic investment results in high real interest rates that depress the rate of capital formation.

Our continued dependence on foreigners to finance most of our net investment not only poses serious short-term risks, but undermines the prospects for growth of the U.S. standard of living. The low rate of net investment during the mid-1980s is inconsistent with sustained economic growth and international competitiveness. In fact, it has been argued[3] that a rate of net investment far greater, not less, than that of the past is needed for our country to compete and prosper over the remainder of the century.

Since national saving is the difference between income and consumption, the decline in the national saving rate is equivalent to a rise in the share of output that is consumed. Table II shows what happened in the 1985 to 1987 period as compared to the average between 1970 and 1979. The share of output consumed by the federal government, that is, government purchases, increased by only one percentage point.[4] Consumption by state and local governments remained unchanged. The problem of low national saving is therefore *primarily a problem of high personal consumption.*[5]

As discussed later, the escalation of personal consumption in the mid-1980s was primarily the result of four factors: large federal budget deficits, changing demographics, increases in personal wealth, and the financial restructuring of the corporate sector through debt-financed takeovers and leveraged buy outs. Before describing in more detail what caused the rise in personal consumption, however, we shall address the short-term risks and long-term damage to our economy that result from sustained low rates of national saving.

Short-run Risks of Low National Saving

National saving can be used for two purposes: to invest in the growth of domestic capacity, or to accumulate net claims on foreigners, which will yield income in the future. The decline in U.S. national saving in the 1980s has been met primarily by a shift of the United States from a balance of payments surplus, in which we were gradually increasing our stock of overseas assets, to a balance of payments deficit, in which 60 percent of net investment in the United States is financed by borrowing abroad. America has also experienced a decline in the rate of domestic investment.

Some people have argued that the dependence of the United States on capital inflows is not a problem, but a sign of strength: it shows the willingness of foreigners to invest here. This argument tries to make a parallel between U.S. experience in the 1980s and our experience in the 19th century when large capital inflows helped to finance a high rate of investment. The parallel is, however, a false one. The United States has not been borrowing in order to invest. In fact, our investment rate is well below its level of the 1960s and 1970s, and the lowest in the industrial world. We are borrowing to consume.

What this means is that the United States is not repeating its own history, or emulating rapidly growing economies like South Korea that have borrowed heavily in order to finance high investment that leads to high productivity growth. Instead, we are following the example of the nations of Latin America, who borrowed heavily on world

Table II
Consumption and Net National Saving
(percent of national income)

	1985–1987	1970–1979	Difference
National Income	100.0	100.0	-
Less: Personal Consumption	74.1	69.3	4.8
Less: Federal Government Purchases	10.6	9.6	1.0
Less: State & Local Government Purchases	13.2	13.2	-
Equals Net National Saving	2.1	7.9	(5.8)

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[3] G.N. Hatsopoulos, P.R. Krugman, L.H. Summers, "U.S. Competitiveness: Beyond the Trade Deficit," *SCIENCE*, 15 July 1988, Volume 241, pp. 299-307.

[4] The term government purchases means only direct spending by government, for example, purchases of supplies and compensation of government employees. These numbers do not include government transfers to individuals of which the Social Security program is the largest component. We have included government payments to foreigners with government purchases. The increase in government purchases between the 1970s and the mid-1980s was solely due to defense spending. In spite of these increases, federal purchases were a smaller share of national income for the 1985 to 1987 period than during the 1960s.

[5] Some have argued that the recent growth in consumption is partly due to higher outlays for durables which should in part be considered investment rather than consumption. Even consumption of nondurables and services as a share of national income increased by 4 percentage points between the 1970s and the mid-1980s.

markets but failed to use the foreign capital to expand their productive capacity.

What happened to the Latin nations was that it eventually became obvious that their dependence on foreign capital was unsustainable. When this happened, they experienced a loss of foreign confidence, and the capital inflows on which they had become dependent were suddenly cut off with devastating economic effects. At the moment the creditworthiness of the United States is still regarded as strong, because our foreign debt is still small compared to the size of our economy; but the risk of a loss of confidence and a cutoff of capital flows cannot be ruled out.

If such a cutoff of capital flows were to occur, the ensuing reduction in national income could be substantial. Most estimates suggest that capital inflows are currently allowing the U.S. economy to live 5 percent or more beyond its means.[6] That means that a cutoff of capital flows would force the United States to make a sudden adjustment comparable in size to that forced by the energy crises of 1973 and 1979 combined. The result could easily be a recession induced by the efforts of the Federal Reserve to control inflation, with an associated loss to the economy considerably greater than 5 percent.[7]

These risks do not seem pressing at the present time, but for a very unfortunate reason: The low value of the dollar makes the purchase of U.S. assets by foreigners very advantageous to them. As a result, net U.S. wealth is being transferred to foreigners. If this transfer continues for a prolonged period, the long-run consequences for the well-being of the American people will be onerous.

Long-run Consequences of Low National Saving

Low national saving must eventually translate into low domestic investment. While it is possible to finance investment for a time through foreign borrowing, eventually the U.S. economy must pay its own way, which means that the ability to invest is constrained by the willingness to save. The problem is that investment is the single most important factor in determining the economy's rate of productivity growth. The United States already has the lowest rate of net investment and, not coincidentally, the lowest rate of long-term productivity growth (measured as the percentage change in real GDP per employed person, 1979 to 1986) among the major industrial countries. A squeeze on investment will further accelerate our relative decline.

This investment squeeze can be postponed for a time to the extent that the United States is able to attract inflows of foreign capital. However, these inflows carry their own cost: an increasing share of U.S. assets end up being foreign-owned, implying that in the future a growing share of U.S. output will be claimed by foreigners.

There is a tendency on the part of most Americans to regard the issue of foreign ownership as marginal; we find it hard to imagine that an economy as large as that of the United States could be in the process of seriously mortgaging its future. Yet the numbers do not support such complacency. The market value of all U.S. corporations, public and private, large and small, is only $2,400 billion; foreign claims on the United States are already more than $1,000 billion, and because of our dependence on foreign financing, net foreign claims are increasing at a rate of between $120 and $160 billion a year. Admittedly, most foreign investment in the United States is in interest-bearing assets, not corporate equities, and corporate assets are only one fifth of U.S. wealth. Nonetheless, foreigners could have a large stake in the U.S. economy, including control of a number of corporations, by early in the next century.[8]

Such a prospect might be viewed with equanimity if foreign investment in the United States were attracted by the strength of our economy and were helping to finance a high rate of investment. But this is not the case. We are in effect selling U.S. assets to pay for consumption, not to finance creation of productive capacity. And since 1985, we have been able to attract foreign capital only by making U.S. assets progressively cheaper in terms of foreign currencies, through a continually depreciating dollar.

The need to attract foreign financing by depreciating the dollar, of course, adds to the eventual cost of our dependence on foreign funds. *To a certain extent the U.S. is not only mortgaging its future through foreign borrowing, but holding a "fire sale" of its assets at bargain prices in order to raise funds.*

It is important to emphasize that there is nothing wrong per se with foreigners buying U.S. assets. If Americans were to buy foreign assets of the same long-term value as those foreigners bought in the United States, the transaction could be beneficial to both. This would happen if the U.S. current account were balanced and if the exchange rate of the dollar were at its long-term equilibrium rate. The problem with the current situation is that the United States is selling its assets to finance consumption and quite possibly doing so at too low a price.[9]

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[6] The 5 percent number may seem surprising, given that the current account deficit is only approximately 3 percent of gross national product. The larger number results from observation of two main points. First, net national product is somewhat smaller than GNP, so the ratio of the current deficit to this number is larger. Much more important, in order to bring its trade quickly into balance, the United States would have to depreciate the dollar sharply. This dollar depreciation would drive up the price of imports, reducing U.S. real income and requiring a larger contraction in real spending.

[7] The recent growth in corporate leverage which we discuss in more detail in Appendix II, could magnify the effects of a cutoff of foreign capital. Highly leveraged firms are particularly vulnerable during periods of recession and high interest rates.

[8] Net foreign investment in the United States between 1985 and 1987 was $417 billion. Of that 76.5 percent was invested in financial assets other than direct investment, 18.2 percent was used to acquire U.S. corporations and divisions of U.S. corporations, and 5.3 percent for other direct investments. Acquisitions of U.S. companies by foreigners have constituted an increasing fraction of net foreign investment: 9.5 percent in 1985, 17.2 percent in 1986, and 25 percent in 1987. Other direct investment as a share of net foreign investment has been declining. (Source: *Flow of Funds Accounts*, Board of Governors of the Federal Reserve System and *Mergerstat Review*, W.T. Grimm and Company.)

The problem of U.S. dependence on foreign capital cannot be solved by treating symptoms – by trying a crash program of reducing the trade deficit by forcing the dollar down even further, or by trying to support the value of the dollar in order to avoid a "fire sale." If the U.S. were somehow to eliminate its current account deficit without raising the national saving rate, we would be in even worse trouble because the inadequacy of domestic saving would force a severe squeeze on investment. On the other hand, if the U.S. were somehow to raise the value of the dollar, the result would be to further widen our current account deficit. The only way to avoid a "fire sale" of our assets is not to need one.

The above discussion leads to one conclusion: *It is a national imperative to increase national saving immediately.* Such action is necessary both to reduce short-term risks and, more importantly, to prevent long-term damage to America's economic future.

The Rise of Personal Consumption

The unprecedented escalation of personal consumption in the mid-1980s is a recent phenomenon– personal consumption as a percent of national income exceeded previous historical peaks in each of the years after 1981. This escalation has been attributed to many causes including the presence of large federal deficits during a long economic expansion, changes in demographics, the rise in personal wealth, and the changing attitudes of people.

The determinants of consumption are a source of intense debate among economists. Much thinking on the subject assumes that individual households rationally formulate lifetime consumption plans based on both their current wealth and their expected earnings. If this were a good description of actual behavior, consumption spending would be unresponsive to many influences commonly cited. For example, dividend payments and accrued but unrealized capital gains would have equal effects on consumption. In addition, tax cuts would not be spent, because households would foresee the eventual burden of servicing government debt.

For a number of reasons, however, this stylized view is an inadequate description of actual consumption behavior. The most common objection is that many households, especially low income households, may face liquidity constraints because they are unable to borrow against future labor income. Such constraints force households into a shorter-term focus, in which changes in cash flow, whether due to reduced taxes or higher pre-tax income, may raise consumption more than their impact on lifetime earnings would indicate. Even higher income households who hold substantial assets and do not face liquidity constraints may, however, be excessively sensitive to current cash flow. They may base their spending on rules of thumb that give a high weight to current receipts. For example, sophisticated managers have a tendency to ratchet up their consumption in response to a high bonus during a year of record earnings, although they are fully aware of the temporary nature of such a payment. Because of this, many large corporations accrue bonuses and pay them over a number of years.

There is substantial empirical evidence that households associate consumption more with current cash flow than with unrealized capital gains. This was one reason that corporations paid cash dividends prior to the Tax Reform Act of 1986, even though under pre-1986 tax rules they could have reduced stockholder taxes by issuing stock dividends and transferring cash to stockholders through share repurchases. Thermo Electron and other high technology companies did make use of stock dividends; but this led to criticism from many stockholders who would have preferred to receive cash dividends because they were unwilling to sell shares to support current consumption.

The evident inadequacy of a framework in which households form fully rational lifetime consumption plans has led most econometric model-builders to adopt a specification for the aggregate consumption function in which both household net worth and current disposable income affect spending decisions. Our empirical research, summarized in Appendix I, extends the usual approach to estimating aggregate consumption functions by examining the effect of forced conversions of corporate equities into cash.[10] Such conversions have resulted from the extraordinary level of activity in debt-financed takeovers and leveraged buy outs in the mid-1980s. Figure 1 illustrates the magnitude and the unusual aspect of these activities. Prior to 1984 net new equity issues in the corporate sector were very small, averaging about zero. Since 1984, net new equity issues have been negative – equity retirements have exceeded new equity issues by large amounts. Concurrently, net additions to debt have grown rapidly.

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[9] There is considerable debate over whether the dollar is currently under- or over-valued relative to the level it will settle at in the long run. Nothing crucial in our argument depends on which side is right. At the moment financial markets believe that the dollar is weak enough to ensure a steady decline in the U.S. current account deficit. If they are right, then capital inflows, which are by definition equal to the current deficit, will also steadily decline, implying a growing squeeze on U.S. investment. If the current deficit does not continue its decline, markets will without doubt force the dollar still lower until it reaches a level at which the external deficit really does come down. Either way, within a few years, the U.S. will be forced to do without the massive net capital inflows that have replaced our vanishing national saving up to this point.

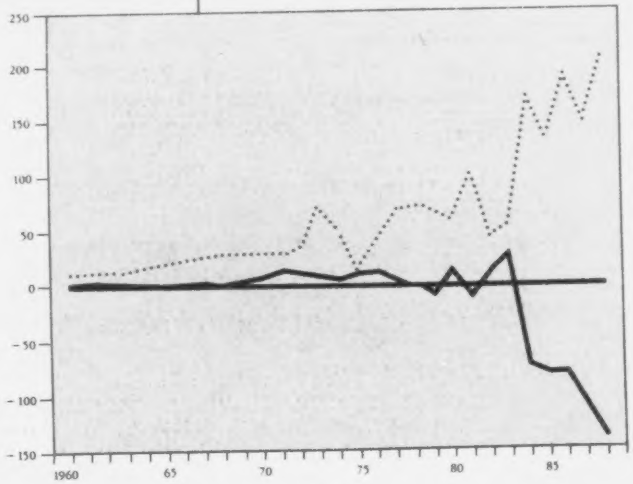
[10] One would of course expect a correlation between *voluntary* realization of gains and consumption spending, since households may realize gains to finance spending on durables or large nondurable purchases. Our analysis focuses on the spending effects of involuntary realizations.

Debt-financed purchases of corporate stock force stockholders to convert their equity holdings, at least temporarily, into cash. This would not affect the fully rational investors of the stylized view. They should view cash and stocks as affecting their wealth equally and should immediately reinvest any cash accruing from a sale of stock. In reality, however, this is not the case: cash receipts are more likely to induce current consumption than gains that have not been converted into cash. This observation is consistent with previous empirical work and the results described in Appendix I, according to which persons consume only about 3 cents of each dollar of increased net worth as contrasted to over 50 cents on each dollar of forced conversions of equity to cash.

Our study of the underlying determinants of consumer spending sheds new light on the growth in consumption during the 1980s. *Our findings summarized in Table III and explained in more detail in Appendix I suggest that the rising ratio of consumption to national income can be explained largely as a result of four factors: growth in disposable income, changing demographics, variation of household wealth, and forced conversions of equity into cash.* In the 1985 to 1987 period, the consumption share of national income was 4.7 percent greater than in the 1970 to 1979 period. While the imprecision of econometric estimates suggests that our findings be viewed as illustrative rather than as a precise decomposition, our basic results suggest that the growth in disposable income, due primarily to rapid increases in interest income, accounts for 1.8 percentage points (more than one third) of this increase. The decline in the share of the population under age sixteen, with its associated changes in spending behavior, may explain one quarter of the consumption growth. Rising household wealth and forced equity-to-cash conversions each account for approximately one-sixth of the increase in consumption as a share of national income. There remains a small unexplained growth component.

The rise of disposable income as a percent of national income in the mid-1980s relative to the 1970s, to which we attribute more than a third of the increase in consumption, is essentially the result of the change in only one component: personal interest income. Labor income, the largest component of disposable income, declined slightly. Transfer payments less personal taxes and contributions for social insurance remained virtually constant.

Figure 1
Nonfinancial Corporate Sector
($ in billions)



The rise in interest income resulted primarily from the high real interest rates in the mid-1980s. Real interest rates[11] received by households averaged 6 percent in the 1985 to 1987 period as compared to 1.5 percent in the 1970s. Real interest rates were much higher in the mid-1980s than in the past partly[12] because national saving was insufficient to fund domestic investment. The link between saving and interest rates implies that an autonomous decline in saving, say due to demographic factors, may be magnified through its effect on interest rates. This multiplier effect also worsens the federal deficit by increasing the interest paid by the federal government.

The rise of personal wealth in the mid-1980s, to which we attribute a part of the rise in consumption, is partly due to the rise in the stock market which in the 1980s more closely reflects the replacement cost of corporate net worth than it did in the 1970s. The rise of personal wealth is also related to the increase in the federal deficit. National net worth is all that Americans own. The apparent net worth of households equals the national net worth plus the federal debt. The large deficits of the 1980s caused national debt to grow faster than national net worth and, as a result, personal wealth grew faster than national net worth.

The contribution of debt-financed takeovers and leveraged buy outs to the decline of national saving is not limited to their direct effect on consumption discussed earlier. Forced conversions of equity into debt affect national saving in two additional ways. First the shift from equity to debt reduces federal revenues since interest payments may be deducted from the corporate tax burden while retained earnings or dividends may not.[13] Second, when corporations shift from equity to debt, they ordinarily end up paying more in interest than they would have paid in dividends and have less retained earnings. Thus personal disposable income rises at the expense of accrued capital gains. Since the propensity to consume is much higher for changes in disposable income than for accrued capital gains, such a shift promotes consumption.

Aside from demographic change, then, the rising share of private consumption in the 1980s may be attributed to a rise in interest income, an increase in private wealth that exceeded the growth in national wealth, and the direct impact of conversion of corporate equity to debt. These factors were not exogenous, however. For example, the rise in interest income was driven by the combination of budget deficits and conversions of equity to debt, and corporate decapitalization was largely due to changes in the tax laws.

A Strategy to Raise National Saving

It is imperative that we increase national saving immediately. This means, by definition, reducing consumption's share of net output. ***The ultimate goal should be to bring national saving from about 2 percent of net output in the mid-1980s, to above the 1970 to 1979 average of about 8 percent of net output.*** The increase, however, should not be done too rapidly. Otherwise, we would risk taking the economy into a recession caused by insufficient demand. Such a recession would tend to lengthen the period of adjustment. Rather, we want to substitute for the decrease in domestic consumption a comparable increase in net exports and net investment.

Table III
Sources of Consumption Growth 1985 to 1987 versus 1970 to 1979

	Estimated Consumption Effect (% of NNP)
Disposables Income/NNP	+1.8
Percentage of Population less than 16 years old	+1.0
Net Worth/NNP	+0.8
After-Tax Cash from Takeovers/NNP	+0.7
Total Explained Change	+4.3
Unexplained Change	+0.4

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[11] Real interest rates were calculated by subtracting from nominal interest rates the annual percent change of the personal consumption deflator. Nominal interest rates were calculated as the ratio of personal interest income divided by deposits and credit market instruments owned by households. (Source: *Balance Sheets of the U.S. Economy*, Board of Governors of the Federal Reserve System, and *National Income and Product Accounts of the United States*, U.S. Department of Commerce.)

[12] Financial deregulation and the proliferation of high-risk, high-yield securities to finance mergers and leveraged buyouts also contributed to the high real interest rates received by households.

[13] The net effect of LBOs on federal tax receipts is somewhat controversial. The forced realization of capital gains and the increased rate of corporate profits associated with these transactions may increase tax receipts, partly offsetting revenue losses from increased interest deductions.

There are two ways to increase exports. The first is to reduce the exchange rate of the dollar and the second is to improve the productivity of U.S. manufacturing and the quality and distribution of the products it makes. The first way is costly – it makes U.S. assets cheaper and imports more expensive. The second way is more lasting and in the long run more beneficial.

To make U.S. manufacturing inherently more competitive will require increases in the rate of investment not only in tangible assets, but also in research, development, and marketing. Accordingly, *a strategy focused primarily on an increased rate of investment to substitute for decreased consumption not only helps avoid a recession but also helps solve our long-term problems.*

The rate of investment in industry depends strongly on industry's cost of capital. The cost of capital is a composite of the cost of debt and the cost of equity. The cost of equity, which is particularly important for long-term investments, has always been higher than the cost of debt partly because interest payments on debt are excluded from taxation whereas dividends and retained earnings are not. As discussed later, changes in the tax code during the 1980s have widened the difference between the two costs and have been instrumental in encouraging conversions from equity to debt in the corporate sector. What is needed to improve the competitiveness of our industry is both a lowering of the overall cost of capital and a reduction of the gap between the cost of equity and the cost of debt.

An increase in our national saving rate will, of course, reduce interest rates. This reduction, however, may not be sufficient to achieve the required level of investment. Other initiatives, such as changes in the tax code, may also be required.

Doing all of these right things does not guarantee that we can avoid either overheating the economy or slowing down the rate of output growth. We simply do not possess the skills, let alone the determination, to "fine-tune" the economy that well. Nevertheless, we have to try – delaying only makes things worse.

There are three ways to increase national saving: (1) Reduce the federal deficit, (2) induce voluntary increases in personal saving, and (3) slow down the escalating leveraging of U.S. business. Each of these ways will be discussed in more detail.

Reducing the Federal Deficit

The emergence of a large federal deficit in the 1980s is a significant contributor to the decline in national saving. The popular view, however, that the deficit is the sole villain does not stand up to analysis. First, as seen in Table IV, the decline in private saving is more important than the increase in the federal deficit in explaining the reduction in national saving. Second, there is less than one-to-one correspondence between changes in the budget deficit and national saving.

Table V shows the major components of federal income and spending in the period 1970 to 1979, contrasted with 1985 to 1987. Direct purchases increased mostly as a result of increased defense spending. Increases in transfer payments were quite sizable. Net domestic interest increased partly because of the accumulation of deficits in the 1980s and partly because real interest rates are higher now than in the past.

This last point implies not only that we are now paying for past sins but also that the budget deficit is affected by the level of interest rates which, in turn, is affected by the level of national saving. Thus, an improvement in national saving can, per se, improve the federal deficit.

As a matter of accounting, national saving is the sum of government saving (the budget balance) and saving by the private sector. This might lead one to conclude that changes in the budget deficit should be reflected one-for-one in changes in the national saving rate. This is not, however, the case, because policies that change the budget de-

Table IV
Composition of Net National Saving
(Percent of national income)

	1985–1987	1970–1979	Difference
Private Saving	5.5	8.9	(3.4)
Plus federal government saving	(4.9)	(1.9)	(3.0)
Plus state and local government saving	1.5	0.9	0.6
Equals national saving	2.1	7.9	(5.8)

ficit may also affect private saving, often in ways that undermine the effect on national saving.

Two extreme examples may make the point. On one side, consider a reduction in the deficit achieved by reducing government consumption. Since this directly reduces consumption, we may expect it to be more or less fully reflected in higher saving.[14] On the other side, suppose the government were to reduce its deficit with a higher tax on investment income. This would increase government saving; but by reducing the private incentive to save, it would reduce private saving, so that the overall effect on national saving would be far less than the reduction in the federal deficit (and could even be negative, if private saving were especially sensitive to investor returns).

Other measures will usually lie between these extremes. A reduction in government transfer payments will typically affect individuals who have a high propensity to consume, and thus will induce a strong response in national saving. A tax increase will be less effective, since many households may choose to save less rather than consume less, at least at first.

The important points are: i.) reducing the federal deficit may not lead to a corresponding increase in national saving; and, ii.) the way in which the deficit is reduced matters – not all deficit reduction measures have the same effect on national saving.

At the present time the focus of federal deficit reduction efforts is on the narrowly defined accounting balance, with a timetable for deficit reduction set by Gramm-Rudman-Hollings. This narrow focus has some unfortunate consequences, leading to an emphasis on measures that narrow the deficit without any regard for their effect on the national saving rate – which is the true bottom line.[15]

Nonetheless, now is not the time to do away with targets for the budget deficit, even if these targets sometimes distort policy. Recent political experience has shown that setting rigid targets is, for the time being, a vitally necessary discipline on the political process. What we need to do is maintain the targets for deficit reduction, while placing them in the context of a broader policy aimed at raising national saving. *Deficit reduction alone will not cure the saving problem, especially if it is focused only on short-term accounting goals, but it remains a key part of an overall program.*

Inducing Voluntary Increases in Personal Saving

The ability of government to induce greater voluntary saving has been badly underestimated by policymakers. The reason is the strong conviction of some leading economists that incentives to save don't work. This conviction stems from absence of a definitive statistical association between personal saving and after-tax returns on personal saving accounts over many decades.

The absence of such statistical association is understandable. As discussed previously, returns on investments have different effects on consumption and saving depending on whether the return consists of accrued unrealized appreciation, or it is paid in cash. It is quite possible that increases in real interest rates on credit market instruments encourage consumption whereas investment opportunities for high real rates of appreciation encourage saving.

Table V
Federal Spending and Revenue 1970–1987
(As percent of net national product)

*Payments to foreigners were included with direct purchases for consistency with Table II.

	1985–1987	1970–1979	Difference
Direct Purchases and payments to foreigners*	10.6	9.6	1.0
Plus transfers to persons	10.1	8.5	1.6
Plus net domestic interest	3.0	1.3	1.7
Plus intergovernmental grants and other	3.4	3.8	(0.4)
Total outlays	27.1	23.2	3.9
Less revenue	22.2	21.3	0.9
Equals deficit	4.9	1.9	3.0

[14] Reductions in government investment could discourage private saving by lowering the return to private investments although we suspect this effect is small. Some economists have argued that even a cut in government consumption will not increase national saving, since the private sector will see that this cut reduces the need for future tax increases and therefore consume more today. This argument presupposes a degree of knowledge and sophistication on the part of the average household that we believe few if any consumers possess in practice.

[15] One way to emphasize the importance of focusing on the true bottom line is to notice that a dollar of additional private savings is worth more to the economy than a dollar of deficit reduction because most measures that reduce the deficit will be at least partially offset by reduced private savings

Many countries, including the United States, have experimented with saving incentives. Opinion in the United States has been soured by the failure of the availability of IRAs to prevent the decline in saving in the 1980s. Yet the pessimism about incentives is not warranted by a more careful look.

This is not the place for an extended survey of evidence on saving incentives. We will simply note two points. First is that Canada has a program of saving incentives in place and that in the 1980s Canada has not shared in the precipitous U.S. saving decline. This observation, together with some more formal econometric evidence, suggests that the program has indeed had a positive effect on saving. (A more detailed discussion of the evidence may be found in Appendix III).

Second, we note that the IRA as a saving incentive had some severe limitations. On one side, the amount of sheltered income was limited so that no incentive was provided at the margin for individuals who would be saving heavily anyway. On the other hand, because the incentive was tax-based, it was most valuable to individuals with high income, who were most likely to be saving a good deal in any case. Furthermore, the setup of the IRA encouraged last-minute financial reshuffling rather than a precommitment to save more over time.

In spite of this, some studies suggest that IRAs actually had a positive effect on U.S. saving, i.e., that the saving rate fell in spite of rather than because of IRAs. A better-conceived scheme should therefore have a good chance of success.

The example of Japan is instructive. Before World War II the Japanese people saved less than the Americans. Japan's enormous rate of personal saving after the war was not merely attributal to cultural differences. It was the result of a national campaign. Not only were incentives provided, but more significantly, monthly seminars on the importance of workers' saving were conducted in most major corporations and publicized in the media. Moreover, no Japanese leader was promoting consumption as is frequently done by leaders in the United States.

Public promotions do work in America – from the campaign on careful driving that started after World War II to the promotion of energy conservation that started in the mid-1970's. America now has a lower rate of automobile fatalities than any other country in the world, and our energy consumption in 1987 was the same as in 1973, even though the economy's output increased in real terms by more than 50 percent. On this latter point, many attribute the increase in U.S. energy productivity solely to higher prices. This is not quite so. There is ample evidence that prior to the 1976 campaigns on energy conservation, prior to the Coalition to Save Energy, and before the appointment of energy "czars" by corporations, few individuals or corporations made energy saving investments with paybacks greater than one year. After the campaign, however, many investments were made with paybacks of over 4 years. Americans should know better than anyone that to sell an idea, even one that has value, requires promotion.

The kind of saving initiative that might be effective for the United States should emphasize several features. First, the incentive should be valuable to households regardless of tax bracket. Second, it should induce a regular pattern of saving, rather than solely encourage portfolio reshuffling. Third, the initiative should come as part of a public campaign on behalf of higher saving. Finally, the size of the incentive should be adjusted to achieve a cost effective increase in national saving.

A kind of proposal that might work is described below. *The federal government would expand the current savings bond program to issue higher yield zero-coupon "supersavings" bonds*, which would be non-negotiable and redeemable at face value after 7 years. These bonds could be marketed through banks and other financial institutions to fulltime corporate employees who can purchase them only through monthly payroll deductions, up to $5,000 per worker annually. The bonds would be either redeemed at maturity, at which time any gain would be fully taxed, or they would be rolled over. *The new bonds should be introduced with some fanfare, and the government should lobby businesses to promote the bonds actively among their employees. We view the campaign to raise saving as being at least as important as the actual saving instrument; active promotion is important.* Business experience suggests that participation of employees in benefits such as stock purchase plans or 401k plans increases dramatically after company-sponsored seminars and other promotional activities.

Such a plan would, of course, impose some budgetary cost in the long run, because the government would, in effect, be borrowing funds at above-market rates. Although such a cost may turn out to be very small compared to the benefit to the nation, nevertheless, the government should adhere to the discipline of Gramm-Rudman-Hollings and find a way to offset any revenue lost.

Slowing Down the Leveraging of U.S. Corporations

The ongoing shift from equity to debt in the corporate sector has probably been an important cause of low national saving in the 1980s. It has also created an unnecessary source of economic vulnerability by creating highly leveraged firms that would be placed at risk by any economic downturn or rise in interest rates. Thus, it is desirable to find a way of discouraging the growth of debt that we have recently seen.

There are probably many reasons for the shift from equity to debt that is taking place during the 1980s. The most obvious of these is that tax incentives for corporate borrowing have significantly increased during the last decade. The relative tax burden on debt as compared to equity depends on both corporate and investor taxes. The general trend toward reductions in individual tax rates – from a maximum of 70 percent in 1980 to 28 percent today – has reduced the net tax burden on interest payments and made corporate borrowing more attractive than in the past.

To illustrate the effect of the changes in tax burdens on equity and debt that took place between 1980 and 1987, an example is presented in Appendix II which compares the returns a top-bracket corporate investor would receive per dollar of pretax corporate profit from a corporation totally equity-financed to those from a corporation totally debt-financed for the years 1980 and 1987. The results are shown in Table VI.

It is evident that in 1980 the tax code favored equity over debt. In 1987, however, debt is much more favored than is equity. The changes in the tax code during the 1980s in favor of debt will certainly increase the debt-to-equity ratio of U.S. corporations relative to past experience.

Proposals to regulate takeovers and leveraged buyouts directly are inadvisable—interference with the free market usually does more harm than good. Instead, we believe that the right approach is to remove one of the main incentives for the increasing reliance on debt, the differential tax treatment of debt and equity. Interest on debt is deductible by corporations; payments to stockholders, or retained earnings, are not. This distinction causes increasingly important distortions in the economy. In addition to promoting consumption and reducing federal revenues, tax incentives for debt encourage investments with quick returns. In practice debt cannot be used to finance a long-term research and development project – only equity can. We have already discussed the need to lower the cost of capital and, in particular, the cost of equity to meet both our short-term and our long-term national objectives.

Ideally, we would want to lower the cost of equity to that of debt without affecting the latter. That, however, would be too costly to the federal government and, therefore, we have to find other ways to bring these two costs in line. One policy which eliminates all distortion between debt and equity finance is the expenditure or cash flow tax, advocated in recent years by the Meade Commission in the United Kingdom (1978) and in the Treasury Department's 1977 report, *Blueprints for Basic Tax Reform*. The expenditure tax would constitute a radical redefinition of the tax base: rather than taxing households on the basis of current income, they would be taxed on current expenditure.

A second set of proposals calls for either a partial or complete integration of corporate and personal income taxes. Integration allows shareholders a tax credit against personal income tax based on corporate tax payments. It eliminates (or with partial integration, reduces) the double tax burden on corporate earnings. It also reduces the cost of capital by eliminating one layer of taxation between the corporation and its investors. Such plans are practiced to different degrees in Great Britain, France, and most other European countries. Japan has also achieved parity between the cost of equity and the cost of debt by providing zero taxes on capital gains from equities and a high tax rate, up to 70 percent, on interest received.[16]

A third set of plans involves actions designed to alter the tax deductibility of some or all corporate borrowing. The most common proposals call for eliminating or restricting the deductibility of corporate interest payments, particularly if the interest payments result from a corporate control transaction (a merger or LBO). These plans equalize the costs of debt and equity by raising the former. The resulting increase in the cost of capital facing U.S. corporations would discourage investment and provide a competitive advantage to foreign firms which are still able to deduct interest payments.

A variation of such a proposal has been developed by the American Law Institute.[17] It calls for the disallowance of tax deductions on debt issues that have the effect of reducing equity. Although The American Law Institute's proposal does not discourage new investments, it does involve regulation and does not address the problem of foreign firms having a large advantage over American firms in buying U.S. corporations.

The simplest proposal is that of eliminating the tax deductibility of interest payments, and offsetting this with

Table VI
Returns to Top-bracket Corporate Investors
(Percent of pretax corporate profit)

Firm A is representative of many corporations in the aftermath of a leveraged buyout. Firm B is representative of many firms in the high technology sector.

	1980	1987
Corporation A: All Debt	30	72
Corporation B: No debt, no dividends	39	48
Difference B less A	9	(24)

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[16] Prior to the 1989 Japanese tax reform, the tax code in Japan favored equity over debt more than the United States did prior to 1980. This fact seems inconsistent with the high leverage of Japanese corporations. Japanese corporations, however, started at the end of World War II with practically no capital and the Bank of Japan provided them funds through the banking system. As the equity markets developed, corporate leverage has been rapidly declining.

[17] See American Law Institute, Federal Income Tax Project, Tax Advisory Group Draft No. 18 (Nov. 1988)

a reduction in the corporate tax rate that leaves actual taxes unchanged for the average firm. The main problem with this proposal is that it would actually benefit owners of existing capital, while raising the cost of new capital to firms. Thus it would provide a windfall to firms that are not investing much, while penalizing those that invest heavily – the reverse of what we would like to do. Not incidentally, this would repeat the error of the 1986 tax reform, which eliminated accelerated depreciation while reducing corporate taxes.

The reason for this effect may be stated briefly: under existing law, the rate of depreciation allowed for tax purposes is somewhat faster in real terms than the actual economic rate. This is true even of physical investment in capital. It is especially true of investment in "invisible" assets such as R&D, which can be expensed. As a result, a unit of newly created capital has an advantage over an otherwise equivalent unit created some years earlier. A reduction in the tax rate reduces this advantage.

Appendix IV examines this point numerically. It suggests that under realistic assumptions about inflation and depreciation, a combined elimination of interest deductions and tax cuts, even if revenue neutral, would have a significant effect in raising the cost of capital for corporate investment. In addition, such an adjustment would result in a corporate tax rate of less than 22 percent, well below the maximum personal tax rate of 28 percent. Lowering of the corporate tax rate below the personal tax rate creates many problems, inducing persons to incorporate many of their personal activities.

A Possible Alternative

In what follows we describe a relatively simple method that reduces the cost of equity and raises the cost of debt without affecting the cost of capital or federal revenues. The propose' change would replace the current deduction of interest on debt with a general deduction for capital, set at some percentage of the over-all capitalization of a company, however financed. At current debt to equity ratios and interest rates, a cost-of-capital deduction equal to 5 percent of capital would be approximately revenue-neutral. Such a scheme would leave intact the present favoring of new investment over existing capital and thus avoid a windfall to old capital. At the same time, it would remove the tax incentive for increasing debt. In implementing such a proposal, carefully crafted transition rules should be established to allow corporations with large debt obligations ample time to replace their debt with equity capital.[18] We do not foresee any insurmountable problems.

A central element of this proposal is the definition of total capitalization. For nonfinancial corporations, it is the sum of recorded shareholders' equity plus the average of any loans for which the interest rate paid is greater than the deducted rate, e.g. 5 percent.[19] For financial corporations only equity should be counted as capitalization, but these corporations should be allowed to offset interest expense against interest income as long as their net interest income is positive.

Some may point out that a standard deduction based on total capitalization is arbitrary. It is, but so is a deduction for the cost of debt and not for the cost of equity. To allow an equal deduction for both equity and debt is fairer than what we now have and more conducive to economic growth.

Conclusion

The fundamental problem of the U.S. economy in the 1980s is not the budget deficit but overconsumption. This overconsumption is being financed through large-scale sales of U.S. assets to foreigners at unfavorable terms, a process that postpones the day of reckoning but that increasingly mortgages the U.S. economic future.

Overconsumption is fed partly by the budget deficit, but also by other sources. In particular, there is good reason to believe that the collapse of national saving and the explosion of corporate debt in the 1980s are closely related. The increased leveraging of corporations has raised interest income, led to large realizations of capital gains that get translated in part into consumption, and contributed to the budget deficit.

Because overconsumption in the United States is not simply a by-product of the budget deficit, it needs to be addressed on several fronts. Modest progress on the budget deficit will not be enough: *we need a concerted program aimed at raising national saving from its unprecedentedly low level.* ■

[18] For example, corporations can elect to continue deducting interest expenses on any long-term debt acquired prior to enactment and on any short-term debt up to the amount present at enactment. As long as they make use of such an election, no deduction on equity will be provided. Detailed transition rules are beyond the scope of this paper.

[19] This is necessary to prevent corporations from defining as debt other liabilities such as accounts receivable. The rate of credit for capital could be varied in line with Treasury bill yields or other measures of market required returns.

Appendix I:

Determinants of Consumer Spending

The determination of consumer spending is a fundamental yet controversial issue. Standard economic theory argues that absent credit market imperfections or consumer myopia, consumption would depend only on household net worth. This is the sum of the present value of current and expected future labor earnings, plus current net holdings of real and financial assets. In this setting, neither the cash income from investments nor the flow of after-tax wages would affect spending unless it affected household net worth.

A variety of considerations, however, make this stylized view an inadequate description of actual consumption behavior.[20] First, many households, especially lower income households, may face constraints that make it difficult to borrow against future labor income. If these households would like to borrow and consume more than their current income, liquidity constraints may restrict consumption to current after-tax income. Increases in cash flow, whether due to reduced taxes or higher wages, therefore raise consumption. Second, even high income households with substantial asset holdings may over-react to fluctuations in current income, failing to distribute a current windfall over current and future consumption. This is particularly relevant for our analysis of forced capital gain realizations.

These considerations among others have led most econometric model-builders to adopt a specification for the aggregate consumption function in which both household net worth and a measure of current cash income – typically disposable income as reported in the National Income Accounts – affect spending decisions.

This specification is usually applied to per capita consumption (denoted C) as

$$C = a_0 + a_1YD + a_2W$$

where YD and W, respectively, measure per-capita disposable income and net worth. This equation makes clear that changes in the economic environment that raise YD, either by lowering taxes, raising real interest receipts, or increasing labor income, raise consumption. So do increases in household net worth.

Our analysis extends the usual approach by including after-tax cash receipts from forced capital gain realizations in corporate takeovers as an additional explanatory variable in the consumption model. We do not constrain it to have the same coefficient as disposable income. We also follow many previous studies in adding simple measures of the population age structure to our equation, reflecting the possibility that the aging of the U.S. population has raised aggregate spending for reasons unrelated to wealth or income.[21]

This appendix is divided into two parts. The first presents our estimates of the aggregate consumption function. In the second part, we use these estimates to evaluate the relative importance of a variety of factors in contributing to the rise in consumption between the 1970s and the mid-1980s. We show that the growth in personal income as a share of NNP accounts for nearly 40 percent of the increase in real consumption. Demographic factors can explain another quarter of the consumption growth. Increased household wealth and the growth in cash receipts from corporate takeovers also have positive effects on consumption, each accounting for about one-sixth of the consumption increase.

Consumption Function Estimates

Our primary concern is explaining changes through time in the ratio of consumption to national income, so we use this ratio as the dependent variable in our estimated consumption function. We follow common practice in using the measure of disposable income reported in the National Income and Product Accounts, along with the Federal Reserve Board's estimate of household net worth, as explanatory variables. We add two variables to this list, the share of the population under age 16 and the value of after-tax cash payout in mergers.

The population share under age 16 is drawn from Census reports. We choose this measure of demographic shift for two reasons. First, much of the popular discussion of why saving has declined has emphasized the aging of the "baby boom" generation. Since consumption outlays by adults exceed those of children, consumption as a share of national income should be lower when the share of children in the population is higher. The share of the population under age 16 declines from 34.1 percent in 1960 to 24.5 percent in 1987. Second, when we tried including more detailed demographic variables (for example a set of variables measuring the fraction of the population in each ten-year age group) we obtained very imprecise estimates. This simply reflects the limited amount of time-series data available for our study.

We constructed a measure of the household sector's after-tax cash receipts in merger transactions. W.T. Grimm and Company has tabulated the number and value of merger transactions since 1968.[22] Not all takeovers, however, provide cash to stockholders of the target firm. If the takeover involves an exchange of securities, shareholders receive shares (or debt) in the acquirer in return for their shares in the target. Only cash takeovers generate after-tax cash flow for investors. Unfortunately W.T. Grimm does not report the amount of acquisition activity by financing method. It does, however, report the number of cash mergers as well as the number of other types. To construct a proxy for the value of cash payouts in corporate control transactions, we multiplied the total value of takeovers in each year by the share of transactions involving cash payments. Provided the average size of cash and non-cash mergers is not very different, our data-series should provide a reasonable guide to the time-series movements in cash payout.[23] For the years 1950 to 1967, we extrapolated the Grimm data-series using information from the Federal Trade Commission on the value of large mergers in mining and manufacturing.[24]

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[20] Further discussion of the "corporate veil" may be found in James M. Poterba, "Tax Policy and Corporate Saving," *Brookings Papers on Economic Activity 1987:2*.

[21] A detailed examination of demographic influences on consumption may be found in M. Boskin and L. Lau, "An Analysis of Postwar U.S. Consumption and Saving, Parts I and II," NBER Working Papers 2605 and 2606, Cambridge, MA, 1988.

[22] These data are presented each year in the *Mergerstat Review*

We conjecture that households after-tax cash receipts from corporate control transactions may affect consumption. These receipts are smaller than total cash payments for two reasons: households do not own all corporate equity, and they are liable for taxes on the cash they receive. Since there is no direct information on the ownership of firms involved in corporate control contests, we assume that the household share in these firms equals their share of domestically-held corporate equity. Data on equity ownership are reported annually in the Flow of Funds *Balance Sheets of the U.S. Economy*.[25] We estimate the tax liability associated with these transactions in a crude manner, assuming that the stockholder's basis in his shares is half the sale price. We also assume that the gains are taxed at the maximum statutory capital gains rate, so the tax liability equals:

Capital gains taxes on cash merger payout = t_{cg} x (.5) x (household equity share) x (cash takeovers).

Using these data, we define after-tax cash receipts series as:

(1-.5 t_{cg}) x (household share of equities) x (cash takeovers).

This is the variable included in our regression equation. The data series is shown in Table VII, measured both in current dollars and constant (1982) dollars and as a fraction of net national product.

Our focus on the consumption effects of cash receipts from takeovers suggests a minor modification to the National Income Accounts disposable income measure. Disposable income equals personal income less taxes. Some of these taxes result from the realization of capital gains in control transactions, and therefore reduce disposable income, even though capital gains themselves are not included in personal or disposable income. When capital gain realizations are high, other things equal, disposable income will be low. We correct for this spurious negative link between realizations and disposable income by defining:

Augmented = NIPA Disposable Income
Disposable + Capital Gains Taxes
Income on Cash Merger Payout

We estimate the basic consumption relationship using annual time-series data for the 1950 to 1987 period. Our central regression result, which corrects for serially correlated errors in the consumption function using autoregressive least squares, is shown below:[26]

C/NNP =
.28x(1/Real Per Capita NNP)
(.10)

+ .83 x (Augmented Disposable Income/NNP)
(.03)

+ .59 x (After-Tax Receipts from Takeovers/NNP)
(.42)

+ .03 x (Household Net Worth/NNP)
(.01)

− .22 x (Share of Population < 16)
(.06)

First-Order Autoregressive Coefficient: .39 (.18) $R^2 = .91$

The estimated coefficients on disposable income and on net worth are similar to those in earlier studies.[27] The estimates also suggest an important link between after-tax receipts from takeovers and consumer spending, with a marginal propensity to spend of .59. This coefficient is not estimated with the same precision as the coefficients on income or wealth, however. The hypothesis that this coefficient equals zero can be rejected at the 85 percent confidence level, although not the conventional 95 percent level.[28] There is also strong empirical support for the view that demographic shifts have altered the level of consumer spending. The next sub-section evaluates the substantive importance of these findings.

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[23] Our estimates of the share of transactions involving cash payout are broadly comparable with the five-year averages, based on *value*, reported in Julian R. Franks, Robert S. Harris, and Colin Mayer, "Means of Payment in Takeovers: Results for the United Kingdom and the United States," in A. Auerbach, ed., *Corporate Takeovers: Causes and Consequences* (Chicago: University of Chicago Press, 1988). We describe alternative results using these data below.

[24] U.S. Federal Trade Commission, *Statistical Report on Mergers and Acquisitions: 1978*, Bureau of Economics, Washington, D.C., 1980. We estimated the share of merger transactions involving cash during the 1950 to 1967 period using the five-year average shares reported in Franks *et al.*

[25] The Flow of Funds includes nonprofit institutions along with individuals in the "household" sector. Although we would prefer to exclude these untaxed institutions from our definition of the household sector, that is not possible given available data. We exclude foreign equity holdings in calculating the household share because most such holdings are concentrated in subsidiaries rather than general portfolio investment. Our results are not significantly affected, and suggest a larger effect of cash payout on consumption, if we include foreign ownership in calculating the household share of equities.

[26] We do not include a constant term, but instead include the variable 1/Real Per Capita NNP, because this results when the linear specification for real per capita consumption used in most studies is deflated by net national product per capita. The numbers in parentheses are coefficient standard errors. T-ratios may be obtained by dividing the coefficient by its standard error.

[27] These results are broadly consistent with many previous empirical studies.

[28] The coefficient on cash receipts from takeovers is also somewhat sensitive to our choices regarding demographic variables.

Since our evidence that cash receipts from corporate control transactions affect consumption is the principal contribution of our econometric results, we explored the robustness of the findings in several ways. First, since our corrections for capital gains taxes are imprecise, we replaced our tax-adjusted measure of payout with the unadjusted level of cash payout. This variable has a stronger statistical effect on consumption than our corrected measure, supporting our general view of a link between cash transactions and consumption. Second, we used an alternative measure of the share of cash payout in takeovers based

Table VII
Household Cash Receipts from Takeover Activity

(Columns 1 and 2 are measured in billions of dollars. The data reflect the total value of mergers reported by W.T. Grimm, multiplied by the share of such mergers for cash and the share of corporate equity held by households. We also perfom tax adjustments as described in the text.)

Year	Current Dollars	Constant (1982) Dollars	Percent of NNP
1950	0.0	0.1	0.0
1951	0.0	0.1	0.0
1952	0.1	0.2	0.0
1953	0.1	0.5	0.0
1954	0.3	0.9	0.1
1955	0.4	1.4	0.1
1956	0.3	1.1	0.1
1957	0.2	0.7	0.1
1958	0.2	0.6	0.0
1959	0.3	0.8	0.1
1960	0.7	2.0	0.1
1961	0.9	2.6	0.2
1962	1.0	2.8	0.2
1963	1.1	3.1	0.2
1964	1.0	2.8	0.2
1965	2.2	6.3	0.3
1966	2.3	6.2	0.3
1967	5.6	14.9	0.7
1968	10.7	27.3	1.3
1969	6.4	15.7	0.7
1970	4.3	9.9	0.5
1971	3.5	7.7	0.3
1972	4.5	9.6	0.4
1973	5.1	10.3	0.4
1974	4.4	7.9	0.3
1975	4.3	7.2	0.3
1976	7.6	12.1	0.5
1977	8.4	12.6	0.5
1978	11.7	16.4	0.6
1979	16.8	21.5	0.7
1980	16.0	18.5	0.7
1981	28.6	30.3	1.1
1982	18.7	18.7	0.7
1983	22.2	21.3	0.7
1984	44.1	40.8	1.3
1985	71.1	63.8	2.0
1986	57.5	50.3	1.5
1987	48.2	40.3	1.2

on the five-year average share rather than the annual share of cash in total payouts.[29] This increased the estimated effect to nearly the same size as the disposable income coefficient. We also recognized that not all cash payouts result from takeovers: some firms repurchase shares for reasons unrelated to corporate control. We therefore constructed a measure of gross share repurchases from the Flow of Funds and included this in our consumption models. Once again the effect was larger than the .59 effect estimated above. The other coefficients in the consumption equation were not substantially affected by these changes.

The possibility that each dollar of after-tax cash payout from corporate takeovers generates 59 cents of additional spending strikes us as implausibly large.[30] We therefore examine the robustness of our conclusions about the source of consumption changes by considering smaller spending propensities as well. Our findings clearly establish, however, that there may be important links between corporate control transactions and national saving.

Explaining Consumption Growth, 1970 to 1987

To evaluate the importance of various changes in the economic environment on the share of national income devoted to consumption, we use our estimates of the aggregate consumption function to explain changes between the 1970 to 1979 and 1985 to 1987 periods. The estimated coefficients provide some guidance on the relative importance of changes in disposable income, wealth, demographic composition, and the role of corporate control transactions. The table shows our basic findings in tabular form.

Table VIII reports the mean of each of the explanatory variables from our consumption model for the 1970 to 1979 and 1985 to 1987periods. Between these periods, the ratio of consumption to net national product increased by 4.7 percentage points. Disposable income (excluding our measure of after-tax cash from takeovers) increased by 2.1 percent of NNP. The table shows that interest receipts grew especially rapidly. Transfers net of taxes did not. While transfers rose by over 2 percent of NNP, this rise was essentially matched by growth in taxes as a share of NNP. The net effect on disposable income is therefore very small. (This stands in marked contrast to the differences between the 1960s and 1970s when transfers net of taxes increased significantly as a share of NNP.) Using our estimates of the marginal propensity to consume from disposable income of .83, the net effect of these changes has been to increase the consumption to NNP ratio by 1.8 percentage points.

Table VIII
Baseline Calculation of Sources of Consumption Growth

	1985–1987	1980–1987	1970–1979	1985–87 less 1970–79	Estimated Consumption Effect
Consumption/NNP	74.0	73.1	69.3	+ 4.7	+ 4.7
Disposable Income/NNP	79.5	79.7	77.4	+ 2.1	x .83 = + 1.8
Labor Income/NNP	60.6	61.2	61.5	− 0.9	x .83 = − 0.7
Interest Income/NNP	13.2	12.8	8.3	+ 4.9	x .83 = + 4.1
Other Capital Income/NNP	10.0	9.7	12.0	− 2.0	x .83 = − 1.7
Transfers/NNP	13.7	13.9	11.5	+ 2.2	x .83 = + 1.8
Taxes/NNP	(18.0)	(17.9)	(15.9)	− 2.1	x .83 = − 1.7
After-Tax Cash from Takeovers/NNP	1.6	1.1	0.5	+ 1.1	x .59 = + 0.7
Net Worth/NNP	331.0	332.1	303.1	+25.9	x .03 = + 0.8
Percent of population < 16	24.7	25.2	29.4	− 4.7	x −.22 = + 1.0
Total Predicted Change in consumption/NNP					+ 4.3
Unexplained Component of consumption/NNP					0.4

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[29] The five-year averages are drawn from Franks, Harris, and Mayer, op cit.

[30] The coefficient on forced realizations may reflect more than simply the marginal propensity to spend from cash receipts. If increased takeover activity raises all share prices, for example, and this wealth effect increases consumption, our estimated coefficient could be biased upwards.

The household sector's after-tax receipts of cash income from takeovers also increased from 0.5 to 1.6 percent of NNP between 1970 to 1979 and 1985 to 1987. Given our estimate that these receipts raise consumption by 59 cents on the dollar, we attribute an increase in the consumption to NNP ratio of 0.7 percent to this shift in the economic environment. Our findings suggest similar effects from shifts in net worth. While the value of household net worth averaged 3.05 times net national product during the 1970 to 1979 period, this ratio increased to 3.31 times NNP during the more recent years. However, the small effect of net worth on consumption (.03) implies that even this large wealth change raises consumption by 0.8 percent of NNP.

Finally, our estimates imply that demographic shifts have had a significant effect on the share of national income devoted to consumption. Between 1970 and 1979, the share of the population under age 16 declined. The average share during this period was 29.4 percent. In the 1985 to 1987 period, by comparison, only 24.7 percent of the population was in this age category. Given our estimate that a one percent decline in the share of the population in this age group raises the share of NNP devoted to consumption by .22 percent, we estimate that changes in the demographic mix could account for a consumption shift of 1.0 percent of NNP, or nearly one quarter of the decline between 1970 to 1979 and 1985 to 1987.

Although demographic factors can explain some of the long-run shifts in consumption patterns, they are unlikely to explain short-run variations in saving rates such as the decline between the early and mid-1980s. This is because demographic variables change very slowly, as demonstrated in Table IX. To explain significant year-to-year variation in saving rates on the basis of demographic factors, the marginal propensities to save across different groups would have to differ by far more than plausible estimates would suggest.

Sensitivity Analysis

Our calculations of how changes in the U.S. economy between the 1970 to 1979 and 1985 to 1987 period, have affected consumption rely exclusively on our estimated consumption function. Since we make several important assumptions in estimation, for example by constraining all of the components of disposable income to have the same effect on consumption, some evidence on the robustness of our findings is useful.

We report one alternative calculation of consumption effects in which we assume that the marginal propensity to consume out of transfers is higher than that out of other forms of disposable income (perhaps because transfers are received by liquidity constrained households; perhaps because households assume that they are more permanent than other forms of income). We set this marginal spending propensity to unity in our alternative calculation. We also consider the possibility that the spending propensity from capital income is lower than our estimates suggest, and set both the MPC from after-tax cash income received in takeovers and the receipts from other capital income equal to .3. We do not modify our other estimated coefficients. The results of this calculation are shown in Table X on the next page.

The results are less successful than our earlier calculations in explaining the growth of consumption. The estimates still explain 60 percent of the consumption increase, however, which is substantially more than earlier studies of the saving decline have accounted for.

Our analysis has focused on comparing the experience of the 1980s with that of the previous decade. This comparison is motivated by the striking rise in U.S. consumption during the 1980s. Our estimating equation can also be used, however, to analyze changes in consumption between other time periods. One useful way of validating our model is to see if it correctly predicts the change between

Table IX
Share of U.S. Population by Age Groups

Year	<16	17–24	25–34	35–44	45-54	55-64	>65
1950	0.297	0.119	0.158	0.142	0.115	0.088	0.081
1960	0.341	0.106	0.127	0.134	0.114	0.086	0.092
1970	0.321	0.139	0.123	0.115	0.114	0.091	0.098
1980	0.261	0.152	0.165	0.114	0.100	0.096	0.113
1985	0.248	0.135	0.177	0.133	0.094	0.093	0.119
1987	0.245	0.127	0.178	0.141	0.095	0.090	0.122

Table X
Alternative Calculation of Sources of Consumption Growth

	1985–1987	1970–1979	Difference	Estimated Consumption Effect
Consumption/NNP	74.0	69.3	+ 4.7	+ 4.7
Disposable Income/NNP	79.5	77.4	+ 2.1	
Labor Income/NNP	60.6	61.5	− 0.9	x .83 = − 0.7
Interest Income/NNP	13.2	8.3	+ 4.9	x .30 = + 1.5
Other Capital Income/NNP	10.0	12.0	− 2.0	x .30 = − 0.6
Transfers/NNP	13.7	11.5	+ 2.2	x 1.00 = + 2.2
Taxes/NNP	(18.0)	(15.9)	− 2.1	x .83 = − 1.7
After-Tax Cash from Takeovers/NNP	1.6	0.5	+ 1.1	x .30 = + 0.3
Net Worth/NNP	331.0	305.1	+ 25.9	x .03 = + 0.8
Percent of Population < 16	24.7	29.4	− 4.7	x −.22 = + 1.0
Total Predicted Change in Consumption/NNP				+ 2.8
Unexplained Component of Consumption/NNP				+ 1.9

two earlier periods, say the 1960s and the 1970s. If the model significantly mispredicts in these time periods, then its reliability in accounting for the experience in the 1980s would be open to question.

Table XI reports decadal averages for the variables in our consumption function for both the 1960s and 1970s. These averages are of independent interest for their contrast with the later periods that we focused on above. Two features of the comparison between the 1960s and 1970s are striking. First, in contrast to the recent period, there was rapid growth in transfers. These payments increased from 6.9 to 11.5 percent of NNP between the 1960s and 1970s. Taxes also increased, but by only 2.6 percent of NNP. The second important pattern is the pronounced decline in

Table XI
Sources of Consumption Growth
1960–1979

	1970–1979	1960–1969	Difference	Estimated Consumption Effect
Consumption/NNP	69.3	68.5	+ 0.8	+ 0.8
Disposable Income/NNP	77.8	75.7	+ 2.1	x .83 = + 1.7
Labor Income/NNP	61.5	60.0	+ 1.5	x .83 = + 1.3
Interest Income/NNP	8.3	6.0	+ 2.3	x .83 = + 1.9
Other Capital Income/NNP	12.0	15.7	− 3.7	x .83 = − 3.1
Transfers/NNP	11.5	6.9	+ 4.6	x .83 = + 3.8
Taxes/NNP	(15.9)	(13.3)	− 2.6	x .83 = − 2.2
After-Tax Cash from Takeovers/NNP	0.5	0.4	+ 0.1	x .30 = + 0.1
Net Worth/NNP	305.1	341.1	−36.0	x .03 = − 1.1
Percent of Population < 16	29.4	33.9	− 4.5	x −.22 = + 0.9
Total Predicted Change in Consumption/NNP				+ 1.6
Unexplained Component of Consumption/NNP				+ 0.9

household net worth as a share of NNP. While net worth averaged 3.41 times national income during the 1960s, the decline in the national debt as percent of NNP combined with the decline in stock market values during the 1970s reduced this average to only 3.05. The 1980s have witnessed a rebound in the ratio of net worth to NNP, but not to the level of the 1960s.

The last column of Table XI shows the predicted change in consumption as a share of NNP from each of the components of our consumption equation. The results provide encouraging evidence on the predictive power of this model. Between the 1960s and the 1970s, the consumption share of national income increased by 0.8 percent. Our equation predicts a 1.6 percentage point increase which consists of a 2.7 percentage point increase due to changes in disposable income, demography, and cash receipts from takeovers, which is partly offset by a 1.1 percent decline attributed to changing wealth. Although the equation does not predict the actual change exactly, it yields a reasonable estimate (and correctly predicts the direction) of the consumption change. ■

Appendix II:

Why Has Leverage Increased?

Growth in corporate leverage during the 1980s is the result of many different factors. First, the tax incentives for corporate borrowing have increased during the last decade. The relative tax burden on debt vs. equity depends on both corporate and investor taxes. The general trend toward reductions in individual tax rates (from a maximum rate of 70 percent in 1980 to 28 percent today) has reduced the net tax burden on interest payments and made corporate borrowing more attractive relative to equity.

A simple example, presented in detail in Table XII, illustrates the changing tax posture toward debt. In 1980, a firm earning one dollar in pretax profits and using equity finance would have 54 cents available after-tax for equityholders (the marginal corporate tax rate was 46 percent). If all of this after-tax profit was reinvested, then a shareholder in the top tax bracket would eventually pay a capital gains tax of 28 percent and would receive 39 cents after all taxes. This makes the conservative (high-tax) assumption that capital gains are taxed at their statutory rate of 28 percent and neglects the benefit resulting from deferral of tax liability until gains are realized. For a bond-financed project, the firm would pay no tax, the interest recipient would pay personal income tax of 70 cents per dollar of interest income and would receive 30 cents after all taxes. Thus, from the perspective of the top-bracket investor, the tax burden on equity and debt gave a preference to equity.

The lower panel of Table XII examines the company's tax burden in 1987. The same investor providing funds to the same firm would earn an after-tax return of 72 cents on a debt-financed project, compared with 48 cents for an equity-financed project. The after-tax return from a debt-financed project is now significantly larger than that from an equity-financed project, just the opposite of the situation before the 1981 tax reform. Thus, for high-bracket individual investors, the incentive for holding corporate debt has grown significantly during the 1980s.[31]

A second consideration encouraging higher borrowing is the development of financial institutions that reduce the costs of bankruptcy and near-bankruptcy. An obvious example of this is "strip-financing," a technique whereby investors who purchase low-grade corporate debt also re-

[31] The 1981 tax reform clearly encouraged leverage. The net effect of the 1986 tax reform is less clear. For tax exempt investors, for example, corporate tax rate reductions have made equity more attractive relative to debt. On balance, however, there is little question that during the mid-1980s leverage has been more attractive than in previous decades.

Table XII
Tax Burdens on Debt—and Equity—Financed Projects 1980 and 1987

(All calculations pertain to the marginal tax burdens facing an individual investor in the top marginal tax bracket for interest income, dividends, and capital gains.)

1980 Tax Rules	All Debt Project	All Equity Project Payout Rate = 0	Payout Rate = .5
Pretax Corporate Earnings	100	100	100
Corporate Taxes	0	(46)	(46)
Investor Taxes Interest and Dividends	(70)	0	(18)
Capital Gains	0	(15)	(8)
After-Tax Income to Investor	30	39	28

1987 Tax Rules	All Debt Project	All Equity Project Payout Rate = 0	Payout Rate = .5
Pretax Corporate Earnings	100	100	100
Corporate Taxes	0	(34)	(34)
Investor Taxes Interest and Dividends	(28)	0	(9)
Capital Gains	0	(18)	(9)
After-Tax Income to Investor	72	48	48

ceive part of the firm's equity and possibly other debt instruments as well. This technique aligns the interests of corporate debt and equity claimants, thereby avoiding some of the traditional costs of inter-claimant bargaining that affected debt- ridden firms on the edge of bankruptcy in past decades. Strip-financing violates the separation of debtors from equity holders that was traditionally enforced by the Internal Revenue Service in the past.

The net effect of these incentives has been a significant increase in corporate leverage during the 1980s. In every year since 1983 equity retirements exceeded new equity issues by large amounts. In 1987, net equity retirements were $77 billion while debt grew by $154 billion. Projections for 1988 suggest even more rapid growth in leverage. In the second quarter of 1988 net equity retirements rose to an annual rate of $140 billion while debt increased at an annual rate of $214 billion. The results of growing leverage are shown in Table XIII, which describes the decline in both gross and net interest coverage. Gross interest coverage, which rarely was less than 3 prior to 1980, has been less than 2 in each of the last five years. Net interest coverage, which subtracts interest received by business from gross interest payments, has also declined.

The table also presents another measure of corporate leverage, the debt-equity ratio. This ratio has not increased much. The increase in stock market values over the last decade has kept the debt-equity ratio computed at market value from rising. It must be pointed out, however, that neither corporate managers, nor banks, nor credit rating agencies consider debt as a percent of market value of

Table XIII
Interest Share Ratios &
Debt-Equity Ratio
Nonfinancial Corporations
1960–1987

Source: National Income and Product Accounts and Flow of Funds. Debt-equity ratio is calculated using market value of equity. Interest coverage is pretax income plus interest divided by interest.

	Net Interest Coverage	Gross Interest Coverage	Debt-Equity Ratio
1960	12.3	6.2	43.4
1961	10.9	5.9	38.2
1962	10.8	5.9	45.2
1963	11.2	5.8	41.3
1964	11.5	6.0	39.4
1965	11.7	6.4	39.7
1966	10.5	5.9	48.2
1967	8.6	5.0	41.1
1968	8.2	4.7	40.1
1969	6.3	3.7	50.1
1970	4.3	2.8	54.3
1971	4.6	3.0	49.8
1972	5.0	3.2	47.8
1973	5.3	3.2	68.9
1974	4.8	2.9	103.9
1975	4.8	2.9	77.9
1976	6.0	3.4	72.4
1977	6.2	3.5	85.4
1978	6.1	3.3	91.4
1979	5.5	2.9	82.9
1980	4.3	2.4	64.1
1981	3.7	2.0	76.2
1982	2.7	1.7	69.8
1983	3.3	1.9	62.4
1984	3.4	1.9	74.0
1985	3.1	1.7	65.8
1986	3.0	1.7	64.5
1987	3.1	1.8	73.5

equity as a meaningful indicator of the financial soundness of a corporate balance sheet. Interest coverage and other factors are much more relevant.

The aggregate statistics on both interest coverage and the debt-equity ratio mask important variations across firms. For some firms that have been recently involved in leveraged buy outs, for example, debt burdens are much higher than on average. These are the firms that would be at risk if interest rates rose or the economy entered a recession. ■

Appendix III:

Potential Effects of Saving Incentives

Although empirical studies of how rates of return affect private saving are inconclusive there are two recent sources of evidence suggesting that raising the after-tax return to saving might draw forth a private saving response.

First, evidence on the IRA experiment of the early 1980s compiled by Venti and Wise suggests that only about thirty cents of each dollar contributed to IRAs was drawn from other saving instruments.[32] As much as seventy cents per dollar was "new saving," money that would have been spent or paid in taxes were it not for IRAs[33]. The sharp decline (more than fifty percent) in IRA participation in 1987, when contributions were no longer deductible for many households, further supports the view that interest incentives can affect saving.

Second, comparisons of saving behavior in the United States and Canada reveal an interesting pattern: the saving rate in Canada has diverged from that in the United States for the last decade, coincident with the introduction and widespread use of tax-sheltered saving plans for home purchase and retirement. Estimates by Carroll and Summers[34] suggest that each dollar of sheltered saving raises the Canadian saving rate by at least one dollar relative to its U.S. counterpart. This may even suggest that widespread availability of such sheltered accounts promotes a culture of saving in which households devote more attention to future plans and the need for deferring consumption. ■

Appendix IV:

Effect of Revenue-Neutral Changes in Corporate Taxation on the Cost of Capital

We shall examine the effect on the cost of capital of two revenue-neutral alternatives to the present structure of corporate taxation. Under alternative 1 the deductibility of interest payments is eliminated and the resulting increase in corporate taxation is offset by a lowering of the corporate tax rate. Under alternative 2 the deductibility of interest payments is replaced by a general deduction for both equity and debt at a fixed percentage of total corporate capitalization such that the government revenue is not altered.

The real cost of capital c for corporate investments net of depreciation is given by the general expression[35]

$$c = \frac{1 - \tau Z}{1 - \tau} \ (\rho^* + \delta) - \delta$$

where τ is the corporate tax rate at the margin

ρ^* is the real after-tax cost of funds

π is the inflation rate

δ is the depreciation rate of the asset

δ_a is the depreciation rate allowed for the asset by the tax code and Z is the present value of depreciation allowance.

The present value of depreciation allowances Z equals $\delta_a / (\rho^* + \pi + \delta_a)$. This present value approaches zero with increased inflation and approaches unity with accelerated depreciation allowances.

The real after tax cost of funds for a firm is the average of its real cost of equity and its real cost of debt, weighted by the relative amounts of equity and debt used to finance a new project. The costs of equity and debt are determined by the requirements of stockholders and creditors, respectively. For example, assume that stockholders demand, on average, a return of 12 percent on equity investments and creditors an interest rate of 10 percent on corporate bonds. Moreover, let the inflation rate be 4 percent. The real after-tax cost of equity for the average corporation would be 8 percent (12 percent less 4 percent). The real after-tax cost of debt, however, is not 10 percent less 4 percent, because interest payments are deductible. If the corporate tax rate is 40 percent (say 34 percent federal and 9 percent state) then the real after tax cost of debt would be $10 \times (1 - 0.4) - 4 = 2$ percent. For a firm that uses 50 percent equity funds and 50 percent borrowed funds to make investments, the real cost of funds is $0.5 \times 8 + 0.5 \times 2 = 5$ percent. For this cost of funds, the cost of capital c for an investment whose economic depreciation rate is 10 percent per year is 9.7 percent if the tax code allows economic depreciation, 8.1 percent if it allows double-declining-balance depreciation, and 5 percent if it allows expensing.

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[32] See S. Venti and D. Wise, "IRAs and Saving," in M. Feldstein, ed., *The Effects of Taxation on Capital Accumulation* (Chicago: University of Chicago Press, 1987).

[33] The revenue cost to the Treasury, estimated at approximately thirty cents per dollar of IRA contribution, highlights our earlier point on the distinction between a policy's effect on government and total saving. Although IRAs increased the federal deficit, their net effect on national saving was positive.

[34] See C. Carroll and L. Summers, "Why have private savings rates in the United States and Canada diverged?", Journal of Monetary Economics 20, 249-279 (1987).

[35] This expression is based on the approach first proposed by R. E. Hall and D. W. Jorgenson, "Tax Policy and Investment Behavior," American Economic Review 57, June 1967, 391-414.

Table XIV
Cost of Capital Under
Various Taxation
Alternatives

Depreciation Allowances:	Current Law	Alternative 1	Alternative 2
Economic equal 10 percent	9.7	10.6	9.7
Double Declining equal 20 percent	8.1	9.2	8.1
Expensing	5.0	7.0	5.0

Consider now the two modifications of the tax law. Under the first alternative, corporations lose the tax deduction on interest payments but pay the same taxes because the corporate tax rate is lowered. To calculate what the new corporate tax rate would have to be, we assume a pretax corporate return of 20 percent (this would produce an after-tax return equal to the cost of equity, i.e. 12 percent). It is further assumed that this pretax return on equity would not be altered as a result of the enactment of the tax change.[36] Accordingly, the new tax rate is calculated to be 29 percent (22 percent federal and 9 percent state). The marginal real cost of funds for the firm under this alternative will be

$$0.5x(12\text{-}4) + 0.5(10\text{-}4) = 7 \text{ percent}$$

The resulting cost of capital for an asset having a depreciation rate of 10 percent per year rises from 9.7 to 10.6 percent if the tax code provides for economic depreciation, 8.1 to 9.5 percent if it provides for double-declining-depreciation, and 5.0 to 7.0 percent if it provides for expensing as it does for investments in research and development.

Under the second alternative, the deduction on debt is lowered from 10 percent, which is the assumed average interest rate, to a standard 5 percent. This deduction is also extended to equity capital at a fixed 5 percent rate. Thus, although the real cost of debt to corporations increases the real cost of equity will decline, resulting in no change in the cost of funds and, therefore, no change in the cost of capital.[37]

The results are summarized in Table XIV. Alternative 2 is more attractive than alternative 1 because it does not raise the cost of capital and discourage new investment.

The disadvantage of alternative 1 versus either current law or alternative 2 is more pronounced for investments in research and development that can be fully expensed. In fact, since such investments can be financed in practice only with equity, alternative 2 provides stronger investment incentives than current law. ■

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[36] In the long run, reductions in the corporate tax rate are likely to lead to lower pre-tax returns.

[37] For firms using more debt than equity in their capital structure, this change would raise the cost of capital. It would have an opposite effect on firms using mostly equity finance.

Notes:

Design: Tacciso/Gray Design
Type: Alexandria Type Company, Inc.

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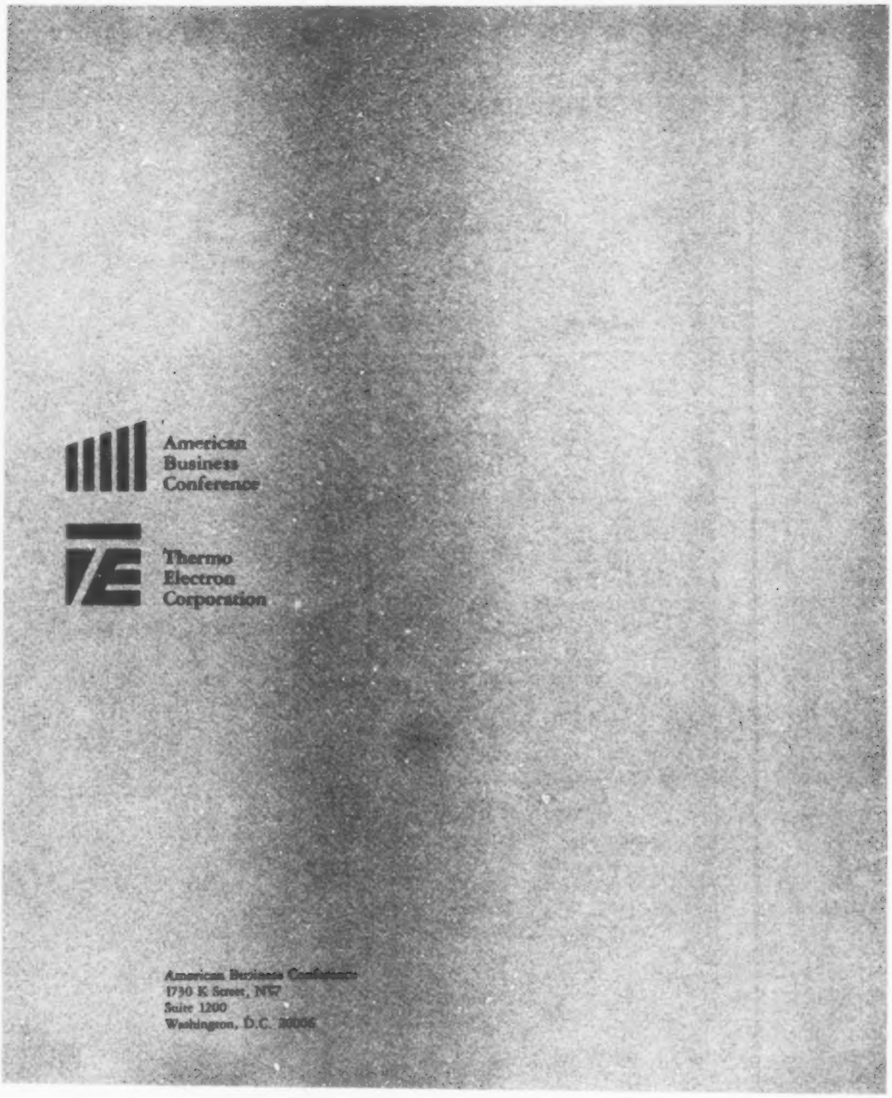

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The Case for Manufacturing in America's Future

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1988

EXECUTIVE SUMMARY

This report examines the competitiveness of American manufacturing and its relation to national economic policies. It begins by highlighting the crucial role of manufacturing in the American economy, and examining the recent performance of the U.S. manufacturing sector. We find that:

- The economic importance of manufacturing is disproportionate to its relative share in the economy. While manufacturing contributes one fifth of national output, it does more than ninety-five percent of private research and development. It is an important provider of high-wage jobs and a major source of product demand for other sectors.
- Manufacturing firms bear the brunt of cyclical fluctuations and macroeconomic policies that generate substantial trade imbalances. Virtually all of the swing in the overall U.S. balance of trade between 1979 and 1985 is accounted for by movements in manufacturing trade. Manufacturing employment has contracted throughout the 1980s as (at least until very recently) both domestic and world markets have increasingly been ceded to foreign competitors.
- In Japan and in all non-U.S. OECD countries as a group, manufacturing is growing more rapidly than total output and the importance of manufacturing in economic activity is therefore rising. In the U.S., by contrast, manufacturing is at best constant or even declining if we look at the 1979-1985 period. By international standards the U.S. is experiencing both low absolute and low relative growth in manufacturing. Our share in world trade has been falling, and import penetration in our own market has increased dramatically.

We believe that the primary reason for the failure of American manufacturers is national economic policies that have given rise to huge twin trade and budget deficits, favored consumption over saving and investment, and been insufficiently sensitive to the need for free markets both at home and abroad. We offer policy recommendations directed at each of these areas:

Fiscal Policy

- Bringing Federal budget deficits under control should be the overriding priority of national economic policy. Reduced budget deficits and increased national saving is essential if American competitiveness problems are to be resolved. This will require consideration of spending cuts in previously sacrosanct budget areas, including Social Security, as well as a significant increase in Federal tax collections. In the short run, various excise taxes could generate significant increases in Federal revenues, but for the long run, serious consideration should be given to new national consumption taxes.
- Structural tax policies should be redirected towards the goals of promoting saving and investment rather than consumption. From this perspective, the 1986 Tax Reform Act was in important respects a step backwards. Serious consideration should be given to restoring the investment tax credit, perhaps on an incremental basis. A crucial long run policy priority is finding ways of raising anemic American private saving rates.

Structural Trade Policies

- The newly industrialized countries pose a significant and increasing challenge to American manufacturers. Efforts to thwart the entry of their products into the United States are not likely to succeed, and if they did succeed would impose large costs on American consumers. Instead of seeking to block imports American policy should concentrate on opening up markets for American products in the newly industrialized countries.
- Protectionist measures whether to limit imports or to discourage foreign direct investment in the United States should be avoided at all costs. Protection only invites retaliation. Even if there were no retaliation, protectionist policies would strengthen the dollar making US exporters less competitive. Foreign investment is likely to benefit the economy even though in some cases it will hurt entrenched American firms.

Exchange Rate Polices

- Efforts to stabilize exchange rates at current levels are misguided. They run very serious risks of throwing the economy into recession and make an eventual financial collapse more likely. American monetary policy should be directed at insuring continued economic growth as the budget deficit declines, not at arbitrary exchange rate targets. Policymakers should recognize that a continued dollar decline is both likely and desirable.
- Rapid growth in the world economy and the expanding markets that it brings about are crucial to the health of the manufacturing sector. As the United States brings its current account back into balance, it should encourage other nations to stimulate domestic demand to replace export demand.

II. FISCAL POLICIES AND U.S. MANUFACTURING

The competitive problems of American manufacturing have many sources. Our low national saving rate is the most important cause of the huge U.S. trade deficit and the consequent weakness of American manufacturing. While the federal government can have only a limited impact on foreign trade practices or the attitudes of American management, there is a great deal that tax and fiscal policies can do to increase our national saving rate.

The American National Saving Problem

A country's current account deficit equals the difference between its national saving and investment rates. Nations like the United States that invest more than they save borrow funds from abroad. The only way foreign funds can come into the United States is for Americans to import more than they export. Japan's situation is the mirror image of that of the United States. Japan saves more than it invests and so runs chronic current account surpluses.

Table 13
National Saving and Investment, U.S. and Japan (Percent of GNP)

Year	Japan Net National Saving	Japan Net National Investment	Japan Current Account Balance
1975	19.4%	19.9%	−0.5%
1980	18.3%	19.5%	−1.2%
1981	18.5%	18.6%	−0.1%
1982	17.9%	17.5%	0.4%
1983	17.0%	15.5%	1.5%
1984	18.2%	15.7%	2.5%
1985	16.7%	13.0%	3.7%
1986	—	—	—

Year	United States Net National Saving	United States Net National Investment	United States Current Account Balance
1975	2.8%	2.1%	0.7%
1980	4.4%	4.2%	0.2%
1981	5.3%	5.2%	0.1%
1982	2.0%	2.0%	0.0%
1983	2.0%	3.2%	−1.2%
1984	4.5%	7.1%	−2.6%
1985	3.2%	6.2%	−3.0%
1986	2.0%	5.5%	−3.5%

Source: OECD Quarterly Income Accounts.

Table 13 displays the recent history of U.S. and Japanese national saving rates. It is clear that reduced national saving is the primary reason for the deterioration in America's trade performance. With a national saving rate below 3 percent, as in the last few years, the United States must choose between two unpleasant alternatives: borrowing on a massive scale from abroad, with the attendant dislocations in the manufacturing sector which is subject to international competition; or reducing further our rate of net investment from its current low level.

Low national saving is the ultimate cause of other problems that are frequently identified as barriers to U.S. competitiveness. The high level of the dollar in the early 1980s was a direct result of capital inflows caused by the high interest rates. The lasting effects of high exchange rates, which dislodged American firms from many of their traditional markets both at home and abroad, are still being felt. While monetary factors have caused the dollar to decline substantially since February of 1985, trade balance remains impossible at current levels. As the dollar declines to a level where trade balances, the U.S. will cease borrowing from abroad. Instead, it will have to rely on its supply of domestic saving to finance investment. Failure to increase domestic saving will induce a dramatic increase in the cost of capital and a sharp decline in the American investment rate.

It is often suggested that a high cost of capital inhibits American investment and encourages myopia amongst American managers. Table 14 illustrates that American manufacturers face much higher costs of capital than their Japanese counterparts.

Table 14
Cost of Capital Differential Between U.S. and Japan

	Real Interest Rate	Earnings-Price Ratio	Cost of Capital
U.S.	6.6%	8.5%	12.9%
Japan	3.2%	3.8%	8.4%

Source: G.N. Hatsopoulos and S.H. Brooks, "The Gap in the Cost of Capital, in R. Landau and D. Jorgenson, eds., *Technology and Economic Policy* (Cambridge: Ballinger Publishers, 1986).

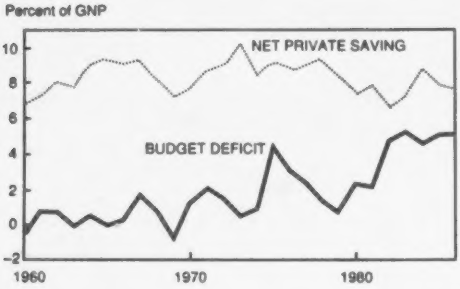
An American manager facing the capital cost in Table 14 would be willing to invest $.37 in return for a dollar six years from now, compared with $.66 for his Japanese counterpart. It is hardly surprising that Japanese managers often appear to take a longer view than American executives. A key reason for the cost of capital differential is that Japan's high saving rate increases the supply of capital available to Japanese firms, while the low saving rate in the U.S. makes capital scarce and drives up its cost.

These considerations suggest that raising our national saving rate is essential if American manufacturers are to regain competitiveness on world markets. Increased saving will reduce the U.S. cost of capital, encouraging the long horizon investments needed for productivity growth. It will also obviate the need for capital flows and the attendant exchange rate misalignments that preclude effective competition for many manufacturing firms.

Federal Deficits and National Saving

The most potent and reliable way to increase national saving is to reduce the federal budget deficit. Figure 6 shows that federal borrowing has absorbed a large and increasing share of private saving in recent years, depressing our national saving rate. In 1986, dissaving by the federal government was ninety percent as large as the flow of private saving generated by households and corporations. While the federal deficit fell by almost one third between 1986 and 1987, this decline was largely a reflection of transitory factors relating to the Tax Reform Act and the sale of federal assets. As a consequence, official projections call for federal deficits approaching $200 billion in coming years if substantial policy changes are not enacted.

Figure 6
Budget Deficits and Private Saving (1960–1986)



The major growth area in the federal budget where spending cuts are possible is Social Security. Table 15 presents the growth rates of Social Security benefits and average hourly earnings during the last two decades.

Table 15
Growth of Disposable Income and Social Security Benefits, 1970-1985

	Real Per Capita Disposable Income	Real Social Security Benefits
1970	100.0	100.0
1975	112.0	133.5
1980	123.3	145.5
1985	132.0	153.8

Source: Council of Economic Advisors, and Bureau of Labor Statistics. 1970 values normalized to 100 by the authors.

Social Security benefits have risen much more rapidly than wages over this period, due to a combination of slow productivity growth and generous indexing provisions. Since 1970, real Social Security benefits have grown one percent per year faster than wages. One attractive option for reducing net outlays on Social Security while inflicting minimal hardship on program beneficiaries involves taxing the portion of benefits that do not represent the return of workers' contributions. Such a policy would reduce Social Security expenditures by $19 billion per year in 1992, but it would principally affect upper-income elderly households for whom Social Security is only one component of family income.

The political difficulty in generating support for sizable reductions in real Social Security benefits, coupled with the need for new revenues to support spending on emerging priorities like education, infrastructure, and civilian R&D and the need to restore tax incentives to spur saving and investment, makes a tax increase in the next few years almost inevitable. The challenge for economic policy will be to choose tax measures that do not interfere with competitiveness by interfering with incentives to save or invest. Two broad approaches are possible—piecemeal reforms that raise taxes on socially harmful activities, and broad based value added taxes that raise revenue with minimal effects on economic incentives.

Several piecemeal reforms on both the tax and spending sides of the budget could trim the deficit while creating desirable economic incentives. These include:

- *Restoring taxes on cigarettes and distilled spirits to their 1952 level (in real terms) and equalizing the tax rates on alcoholic beverages. These taxes would raise more than $10 billion a year.*
- *Requiring firms to amortize their advertising outlays. Since annual advertising spending by U.S. corporations totals approximately $75 billion, this policy would raise up to $10 billion a year over the next several years. It would also reduce the current tax bias towards promotional outlays and away from productivity enhancing new investments in plant and equipment.*
- *Increasing the gasoline excise tax by ten cents per gallon. This would raise $9 billion a year and also encourage energy conservation. Unlike a general oil import fee it would not burden the many companies that use energy products as an intermediate good in their production.*

- *Imposing taxes on portfolio income earned in the United States by foreigners. This could raise about $5 billion a year and at the same time promote U.S. competitiveness by reducing capital inflows.*
- *Tightening the enforcement of existing tax laws. While the precise revenue yield from increased enforcement is uncertain, approximately $100 billion of potential revenue is lost each year due to tax evasion. There is little doubt that increases in the Internal Revenue Service budget are repaid several times over with increased revenues. This strategy for raising revenue would encourage obedience to the law, at the possible cost of harassing some taxpayers. A number of states, however, have succeeded in raising revenues through enhanced enforcement.*

This package of competitiveness-enhancing tax measures could raise up to $50 billion annually without rescinding any of the 1986 tax reforms. It would not entail any increase in tax burdens on savers, investors, or industries facing international competition. The package represents an attractive first step in attacking the deficit problem, but it may not adequately reduce the budget deficit. This is especially likely if Congress chooses to enact new spending programs, or if some of the incentives for saving and investment are restored to the tax code.

The most effective device for significantly reducing the federal deficit without undue distortions of individuals' work and saving decisions is a broad-based value added tax. Value added taxes, a principal revenue source in most European nations, are a form of consumption tax. In the United States, even a value added tax at a relatively low rate would raise enough revenue to significantly reduce the federal deficit. If levied on a comprehensive base of consumption goods, the VAT would raise $21 billion for each percentage point of the tax rate. A five percent VAT, therefore, would raise more than $100 billion and provide a natural complement to the competitiveness-enhancing tax package described above.

Those who oppose adopting a consumption tax typically raise two arguments: that the tax is regressive and unfair, and that once the tax was in place Congress would find it easy to increase the rate and therefore to finance additional outlays. The first argument, regressivity, derives from the fact that low income households consume a higher fraction of their income than high-income households. This argument is flawed, however. It neglects the possibility that income fluctuations are transitory, and that consumption actually provides a better measure of economic well-being than income. On a lifetime basis consumption taxes are much more progressive than they appear to be on the basis of annual data. Furthermore, consumption or value added taxes are more shelter-proof than income taxes: anyone who lives well has to pay them. The only way the rich can avoid these taxes is by saving, making their income available for investment, an outcome that is particularly desirable given the low U.S. saving rate.

It is also possible to modify the tax to reduce its regressivity, even as measured from annual income flows. For example, the tax base for the VAT could be defined exclusive of food, housing, and medical care. These exemptions lower the revenue yield from the tax, from $21 to $12.4 billion per one percentage point of tax rate. Even this more limited revenue base would still permit major inroads in reducing the federal deficit. A further option for improving equity would involve combining the value added tax with benefit increases for means-tested programs such as Aid to Families with Dependent Children and Foodstamps. The Congressional Budget Office recently estimated the cost of raising benefits through these programs to preserve the real purchasing power of recipients, concluding that per one percent tax rate the VAT would now net $16.3 billion for the federal government.

The second argument against the VAT holds that it will fuel excessive government spending by acting as a "money machine". The current fiscal climate makes this possibility unlikely. While some European countries may have succumbed to the temptation to raise spending in the aftermath of adopting a VAT, the large deficits that are forecast for the U.S. federal government over the next few years suggest that the first priority will be providing tax revenues to pay for existing programs. We do not expect major new spending initiatives in the immediate future, even if a VAT is adopted.

Adopting a value-added tax will improve the competitive position of U.S. manufacturing principally through its favorable impact on the budget deficit. Contrary to the frequent claims of consumption tax advocates, the VAT does not provide a direct subsidy to firms that export. Consumption taxes are essentially equivalent to retail sales taxes, although the mechanics of collecting the revenue varies between particular proposals. With a value added tax, revenue is collected from each firm based on the difference between the cost of its inputs and the revenue it receives for goods sold. If a company exports a product, it does not pay any tax on its value-added for the product and in addition it may receive a rebate for the value added tax paid by its suppliers. Although this may seem like a subsidy to exported goods, the rebate in effect just compensates the exporting firm for the higher price that it paid for its inputs on account of its suppliers' taxes. This implies that there is no net subsidy to exporting. Similarly, all imported goods would be taxed, so that consumers would not detect any differential between the retail prices of domestic and imported goods.

There is room for debate about the best way to reduce the federal deficit, but not about the need to do so. It is crucial to remember that budget deficits are not an alternative to spending cuts or tax increases. They are only a device for deferring these painful measures. Running large deficits now only postpones and magnifies the painful adjustments that will ultimately be necessary.

Tax Policies to Promote Private Saving

Reducing the federal budget deficit is the single most powerful tool for raising national saving. It is important, however, not to neglect the possibility of increasing private saving. This can be done either by providing incentives for individuals to consume less and save more, or by encouraging firms to retain a higher fraction of their after-tax profits in order to increase corporate saving. We consider policies of each type in turn.

It is difficult to isolate particular factors that can account for the abrupt decline in personal saving during the 1980s. This complicates the task of suggesting methods for raising personal saving. One potentially valuable instrument in the drive to encourage saving, Individual Retirement Accounts, was unfortunately scaled back in the most recent round of tax reform. The U.S. experience with widely-available IRAs was too brief to permit a definitive estimate of how they affected saving. The central issue is the extent to which IRA saving reflects transfers of resources from other assets as opposed to "new" saving. Some studies suggest that most IRA contributions were additions to the total saving flow, with only about thirty cents of each dollar of contributions drawn from existing saving instruments.

Personal saving accounts for slightly more than half of private saving. The remainder is made up by corporate saving, the undistributed profits that firms retain and re-invest. The level of corporate saving fluctuates for a variety of reasons, most importantly the rate of pretax profitability earned on corporate investments. One policy instrument that can alter corporate saving, however, is the level of corporate income taxes. The corporate sector saves a much higher fraction of its income than the household sector. While the personal saving rate as a fraction of disposable income is about 3 percent, corporations often save more than half of their after-tax earnings for reinvestment. This pattern has important implications for private saving in light of the Tax Reform Act of 1986, which in the interest of "revenue neutrality" raised corporate tax burdens over the next five years by approximately $120 billion while lowering individual tax rates an equal amount.

While some believe that altering the level of corporate saving does not affect the level of total private saving because households "pierce the corporate veil" and recognize the saving that corporations are doing on their account, recent evidence questions that conclusion. If household saving responds by only half as much as corporate saving, so that a one dollar decline in corporate saving prompts a fifty cent increase in personal saving, then shifting the tax burden from individuals to firms has important consequences. In the short run, it suggests that total private saving could decline by approximately sixty billion dollars over the next five years.

Tax Policies to Promote Investment

Raising national saving is necessary but not sufficient to restore the international competitiveness of American manufacturers. It is also necessary to provide adequate incentives for plant and equipment investment. The Tax Reform Act of 1986 is particularly unfortunate from this perspective. The Act raises the tax burden on new investments by both manufacturing and non-manufacturing firms. Equipment investments are especially hard hit because of the abolition of the investment tax credit, which previously provided a 10 percent reduction in the effective purchase price of new equipment. This section quantifies the adverse effects of this legislation and then discusses a revenue-efficient method of restoring the investment tax credit.

The total tax burden on corporate investment depends principally on three features of the corporate income tax: the statutory corporate tax rate, the generosity of tax depreciation, and the rate of investment tax credit. The difference between the before-tax and the after-tax return to corporate investment projects is a useful way of summarizing the extent to which the tax system encourages or discourages investment. This difference, as a fraction of a project's pretax return, is known as the effective tax rate. For example, if an investment project yields a ten percent return before corporate taxes but only a seven percent return after-tax, its effective tax rate is 30 percent. The effective tax rate concept played a central role in the effort to "level the playing field" with the 1986 tax reforms.

Table 16 shows how recent changes in tax legislation have altered the effective tax rates on two asset categories, general industrial equipment and industrial structures. The first two entries illustrate the importance of the Economic Recovery Tax Act of 1981 in lowering the tax burden on equipment. In 1980, both equipment and structures faced substantial tax burdens, with the effective tax rate on structures more than twice that on equipment. Effective tax rates had increased during the 1970s in part because the tax system permits firms to depreciate assets based on their historic cost, and this failed to adequately compensate firms for asset decay when inflation pushed the replacement cost of assets well above these costs. The Economic Recovery Tax Act shortened depreciation lives and reduced the effective tax burden, especially on equipment. The combination of the investment tax credit and accelerated depreciation actually made the after-tax return to some equipment investments higher than the pre-tax return, as indicated by the negative effective tax rate in 1981. The effective tax rate on structures also declined, but by much less.

Table 16
Effective Tax Rates
on Corporate Assets, 1981-1988

Year	General Industrial Equipment	Industrial Structures
1980	22.0%	50.8%
1981	−6.8%	41.7%
1986	−3.3%	45.6%
1988	38.0%	37.0%

Source: Alan J. Auerbach, "Corporate Taxation in the United States," *Brookings Papers on Economic Activity*, 1983:2, p.467, and "The Tax Reform Act of 1986 and the Cost of Capital," *Journal of Economic Perspectives*, 1 (1987), p.77.

The tax environment in 1986 was somewhat less generous to new investment than that in 1981, since legislative changes in 1982 and 1984 had weakened some of ERTA's depreciation provisions. The last two rows in Table 16 demonstrate the impact of the 1986 Tax Reform Act on investment incentives. The effective tax rate on equipment rises from −3.3 percent to 38.0 percent, substantially above the level in 1980 when there were widespread calls for tax reform. The new tax law therefore more than undoes the 1981 Act's increased investment incentives. While it does reduce the effective tax rate on structures slightly, from 46 to 37 percent, the increased tax burden on equipment is likely to discourage investment in precisely the asset categories that reflect the greatest amount of technological progress.

The 1986 tax reform raises the tax burden on investment in manufacturing and other sectors. The particular disincentive for equipment investment is likely to affect manufacturing more than other sectors, however, because manufacturing firms both use equipment and produce it. While less equipment intensive than firms in the transportation industry, manufacturing firms in 1986 used $29,500 of equipment per worker, compared with $15,600 per worker in the non-manufacturing sector. Raising the cost of equipment raises the production costs of manufacturing firms, raising the prices of American manufactured goods in both domestic and world markets. Reductions in the demand for equipment inevitably reduce the demand for manufacturing output, particularly in the high-technology sector.

The fundamental structure of the recent tax reform is flawed, because it reduces the incentive for new investment while providing a windfall to the owners of existing capital. The 1986 Act increases total corporate tax liabilities by about $125 billion over five years. However, this substantially understates the adverse impact that the tax bill is having on new investment. This is because the reduction in corporate tax rates from 46 to 34 percent has the primary effect of reducing taxes on profits earned from investments that are already in place. On the other hand, the abolition of the investment tax credit raises the tax burden on new capital. Table 17 presents a decomposition of the changes in the tax burdens on old and new capital. Over the five year period ending in 1991, the Tax Reform Act lowers the taxes on old capital by nearly seventy billion dollars, and it raises tax burdens on new capital by $188 billion. Since the law's incentive effects depend principally on the tax facing new investments, some reduction in investment is likely due to the new legislation.

Table 17
1986 Tax Reform's Impact on New and Old Capital

	Change in Taxes on Old Capital	Change in Taxes on New Investment
1987	0.8	24.3
1988	−8.6	32.5
1989	−17.1	39.6
1990	−20.1	43.5
1991	−23.3	48.5
Total	−68.3	188.4

Source: L. Summers, "A Fair Tax Act that's Bad for Business," *Harvard Business Review*, March-April 1987.

Most discussions of how the Tax Reform Act affects investment have focused on effective tax rates, ignoring changes in other parts of the corporate tax code that increase total corporate tax payments without directly altering investment incentives. The reform's increase in average tax rates will reduce the supply of undistributed profits available for reinvestment. Some firms will find that investment projects that could have been financed from retained earnings under the previous tax law will now need to be financed by borrowing or issuing new shares. Since external finance is generally recognized as more costly than internal finance, both because of the transactions costs associated with issuing securities and the difficulties of convincing potential investors that prospective projects yield acceptable returns, the smaller supply of internal finance is also likely to reduce investment.

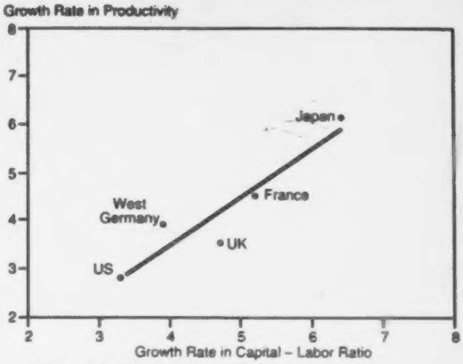
The need to encourage investment provides a case for reinstituting the investment tax credit in some form, particularly if the economy goes into recession or investment spending lags. Restoring the full investment tax credit for equipment would cost nearly $40 billion a year, exacerbating the budget deficit by an amount that is likely to be intolerable unless taxes are available from a new revenue source such as the VAT. It may nevertheless be possible to regain a large fraction of the credit's incentive effect at a small fraction of the cost by a adopting an incremental investment tax credit. The incremental credit would apply only to the change in a firm's net capital stock

between two adjacent years. In effect, it would subsidize expansion of the net stock of plant and equipment but provide no subsidy to replacement investment.

While the precise definition of the net capital stock and net investment depends upon assumptions about the rate at which capital decays and would therefore require careful legislative drafting, the underlying principle is clear. Applying the credit only to net investment preserves the same incentives as the existing ITC for any firm with a growing capital stock, yet it reduces the revenue cost of the investment credit by about 70 percent (the ratio of net to gross business equipment investment was .31 in 1986). Even if the incremental ITC were financed by an increase in corporate tax rates, it would provide much needed stimulus to the manufacturing sector over the next few years.

Figure 7 indicates the importance of raising rather than reducing our rate of investment. American manufacturers have enjoyed slower productivity growth than manufacturers in any of our major competitor nations, including Great Britain, over the past 15 years. The figure also shows a strong association between rates of growth and increases in capital labor ratios.

Figure 7
Growth Rate in Productivity and Capital-Labor Ratio in Manufacturing (1970–1985)



Source: "Presentation on Competitiveness."

We conclude by summarizing our policy recommendations in this area:

- *Bringing federal budget deficits under control should be the overriding priority of national economic policy. Reduced budget deficits and increased national saving are essential if American competitiveness problems are to be resolved. This will require spending cuts in areas of the budget like Social Security that have heretofore been viewed as sacrosanct, as well as significant increases in federal tax collections. In the short run, various excise taxes could generate significant increases in federal revenues, but in the long run, consideration should be given to new national consumption taxes.*
- *Structural tax policies should be redirected towards the goals of promoting saving and investment rather than consumption. From this perspective, the 1986 Tax Reform Act was in important respects a step backwards. Serious consideration should be given to restoring the investment tax credit, perhaps on an incremental basis. A crucial long-run policy priority is finding ways to raise the anemic American private saving rate.*

THE ECONOMY/CEO POLL

THE CAPTAINS SEE A TILTED FIELD

In a new FORTUNE 500/CNN Moneyline Poll, America's top executives say global competition is getting less fair—but they can win without government help.

■ *by Brian O'Reilly*

"Our government has done a very poor job of bilateral negotiation on trade."

EDWARD HENNESSY JR.
Allied-Signal

IT SOUNDS LIKE good news: America is taking a growing share of the world's $2.7 trillion market for exported goods (see preceding story). But mention foreign competition to CEOs of FORTUNE 500 companies, the ones who are winning the battle, and they're far from ebullient. Yes, they believe U.S. companies are getting better at competing against their international rivals. But a growing number of CEOs are frustrated—either by foreign governments helping out their own industries or by U.S. policies that they say make the tough job of international competition even tougher.

These are among the findings of a recent FORTUNE 500/CNN Moneyline CEO Poll. Clark Martire & Bartolomeo, an opinion research firm, queried 213 CEOs of FORTUNE 500 and Service 500 companies between September 27 and October 5.

Asked if their companies were on a level playing field with foreign rivals, 57% of top executives said no. That represents a big jump from 17 months ago, when a FORTUNE 500/CNN Moneyline CEO Poll found that only 40% of corporate chiefs felt at an unfair disadvantage in international trade. No single incident seems to account for the rapid change in sentiment, although recent events—such as Sony's pending purchase of Columbia Pictures and foreign airlines' interest in U.S. carriers—may have magnified the sense of formidable competitors invading local turf. Great Western Financial chief James Montgomery notes another high-visibility trend: "Most of the buildings in downtown Los Angeles seem to be owned by foreign investors."

Certainly some companies have good reason for crying foul. Richard H. Ayers, chairman of Stanley Works, says, "We have a hard time selling tools in India, for instance, because of very high tariffs. But products from India can flow to the U.S. with little tariff burden. We should pressure countries to eliminate those barriers, or we should create our own."

Other companies face rivals with a different kind of advantage: subsidies. Dwayne O. Andreas, head of Archer Daniels Midland, finds it rough exporting grain, since commodities pouring into international markets are often heavily subsidized. "Every one of our competitors is a democratic, socialist, mercantile-managed economy," he says. "American companies are not competing with other companies but with the treasuries of other governments, and that's the problem."

Jack Rehm, president of media company Meredith (*Ladies Home Journal, Better Homes and Gardens*), worries about the growing number of American properties being bought by foreigners unburdened by U.S. accounting rules. They require a purchaser to put a ton of goodwill on the books in most mergers, then amortize it—resulting in an annual hit to earnings—for as long as 40 years. Says he: "As I see more foreign competitors than before, the perception I'm likely to have is that the playing field is less level." Merle Banta, chief of AM International, thinks U.S. companies must divert too much effort to keep America's own raiders at bay. Says he: "The own-

Q **In the past five years, has the U.S. gained or lost ground against its major trading partners?**

A

Gained ground	69%
Lost ground	28%
Not sure	3%

Q **Compared with five years ago, is foreign competition tougher?**

A

About the same	37%
Somewhat tougher	27%
Much tougher	20%
Not as tough	7%
Does not apply	9%

Q **Is your company on a level playing field with foreign competitors?**

A

No	57%
Yes	31%
Not sure	2%
Does not apply	10%

Q **Can U.S. companies compete globally on their own?**

A

Yes	59%
No	37%
Not sure	4%

ership structures of West German and Japanese companies provide better protection against takeovers. Therefore you don't have a lot of Carl Icahns and Boone Pickenses running around there."

Not everyone feels aggrieved. "As long as salaries and wages are about the same in developed countries with well-educated workers, it's a level playing field," says Paul Cook, chairman of Raychem, an electronics company that gets 60% of its revenues overseas. "If you accept that you have to have a local presence in these countries and can't just ship products from here, you can penetrate foreign markets."

"Most of the buildings in downtown L.A. seem to be owned by foreign investors."

JAMES MONTGOMERY
Great Western Financial

Despite what some consider uphill battlefields, an overwhelming number of chief executives feel that new strategies and reorganizations undertaken by U.S. companies in the past few years have greatly strengthened America. Says Westmoreland Coal chief Pemberton Hutchinson: "We're exporting more coal than ever, for less than we did five years ago, and still making money." The dollar has weakened considerably in the past five years, and that makes his goods cheaper abroad, he points out. But Westmoreland is a better competitor today largely because of its own actions. The company cut senior management ranks by one-third and shifted some medical costs to salaried employees, enabling it to compete against subsidized foreign coal.

You'll have to look hard to find a CEO who thinks foreign rivals are slouching. Nearly half consider them better than they were five years ago, and almost everyone else believes the competition is as good as ever.

Which competitors will be most fearsome in the coming five years? These executives divide about evenly over whether to worry more about threats from the East or from the West. Japan was the No. 1 pick to be America's toughest rival, receiving far more mentions than West Germany, even though Germany accounted for a greater share of world exports last year than any other country. Altogether, however, nearly as many executives mentioned European countries as cited Asian ones. Many echoed the view of Ayers at Stanley Works: "Thailand, Malaysia, and mainland China will be a real threat as low-cost manufacturing regions. I have less concern about unified Europe being competitive. The risk is that unified Europe may close its borders and make it harder to sell products into their market."

Should the federal government take a more active role in helping Americans compete abroad? Most CEOs say no, and some say it emphatically. "Hands off," says Colgate-Palmolive chief Reuben Mark, whose company gets two-thirds of its revenues from foreign markets. Executives who favored government help were most likely to cite trade reform—specifically, opening closed markets and eliminating trade barriers. That's easier said than done, of course. Allied-Signal's Edward Hennessy Jr. roundly criticizes America's efforts to open foreign markets. "I think our government has done a very poor job of bilateral negotiation on trade," he says. "We've got to get Japan to accept reciprocity."

The CEOs also urged better cooperation between government and business. Like what? Valmont Industries makes irrigation systems in half a dozen countries, and CEO William Welsh II has no trouble providing examples where cooperation is better than in America. The French offer tax breaks to companies that install environmental controls, he says, while "in the U.S. they slap penalties on you and threaten to put you in jail" if you don't install them. Austria provides credit to foreign government customers, says Welsh, but he has to round up more expensive credit to pull off a similar deal from the U.S. His conclusion: "It's getting more difficult to be a U.S. producer operating in international markets."

Q **Which countries will be America's toughest new competitors over the next five years?**

A

Japan	**42%**
European countries (other than West Germany)	**39%**
Asian countries (other than Japan)	**20%**
West Germany	**18%**
Other	**18%**
Not sure	**9%**

Total exceeds 100% due to multiple responses.

Q **Which government policies would most help U.S. business meet the challenge of global competition? (Responses from the 37% of CEOs who favor government help)**

A

Trade reform	**51%**
Greater cooperation between government and business	**44%**
Tax reform	**24%**
Subsidies	**13%**
Balanced budget	**10%**
Better education	**6%**
Lower interest rates	**4%**
Other	**13%**

Total exceeds 100% due to multiple responses.

"The playing field is less level."

JACK REHM
Meredith

John Croom, head of Columbia Gas System, thinks it may be time for the federal government to overhaul outmoded antitrust rules. "We've seen too much of the Rust Belt industries like steel move to the Far East, and they are never coming back," he says. "There may be a need in a global environment for more joint research or operations." But the only government help many executives want is what Tenneco chief James Ketelsen calls "indirect help." An example he cites: "We've got to improve the U.S. budget deficit so the country can operate with lower interest rates."

What is the CEOs' bottom line on foreign competition? The answer seems a distinctively American attitude toward competition of any kind: This isn't a fair fight, but we'd rather fight it on our own. We can win it that way. We are winning it. But we sure wish it were fair. ■